NCAP

North Carolina Pharmacist

Volume 80, Number 1 ...applying drug knowledge to improve health January/February 2000

Asheville Project Results Exceed Goals

- *NCCPC Hears Recommendations on Credentialing*
- Workplace Issues Discussed at Leaders Forum

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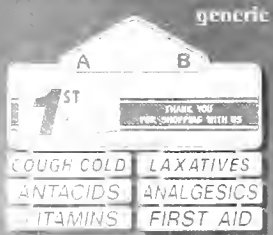

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North Carolina Pharmacist

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Inside

Editors Note: Welcome to the first issue of *North Carolina Pharmacist*! *The Carolina Journal of Pharmacy* has undergone a major change and we hope you like our new format. If you, or someone you know has information to share with our readers we'd like to hear from you. Guest writers and story ideas are always welcome. For more information on how you can contribute to our journal please contact the NCAP office.

Daniel G. Garrett
Executive Director

Voice & Vision

By doing things differently, NCAP Gets State and National Attention

People get attention when they behave differently. North Carolina pharmacy leaders made a decision several years ago to unify pharmacy in the state to speak with one voice and share a common vision. The initial focus of bringing pharmacy together was on the profession itself. I am happy to report that pharmacists are responding positively to the sense of unity in our profession. The first NCAP membership drive is going well and we are on track to have over 2000 members in our first year. What has surprised me is the attention that NCAP is getting from those outside of North Carolina Pharmacy. It has been said that "attention" is the scarcest resource in the twenty-first century. People are bombarded with information and communication from every angle imagined and getting people to pay attention to your message is the first step towards positive action on your ideas. NCAP is doing things differently for pharmacy, and others are paying attention.

In NCAP's first months of existence we have had meetings with:

- The Governor's Task Force on Heart Disease and Stroke Prevention.
- The North Carolina Division on Aging Prescription Assistance Proposal Work Group.
- The North Carolina Medical Review.
- Medical Directors of North Carolina Health Plans.
- The Subcommittee of the Medical Board and Board of Pharmacy on Clinical Pharmacist Practitioner Regulations.

What is even more impressive is that we were invited to meet with these groups. It is often said that you should be careful what you wish for. Pharmacy Leaders hoped that a unified voice and vision for pharmacy would lead to a place at the table for public policy formation on issues affecting pharmacy. Well, it's working, and I have been very busy trying to keep up the pace of meeting with all the groups that want to know how North Carolina Pharmacy can help meet health needs in our state.

NCAP has been involved in hosting two major meetings, one on credentialing and one on workplace issues. We thought it would be a good idea to let the leaders of the national pharmacy organizations know about these forums and invite them to attend. The response from the national organizations has been significant. I am getting phone calls from headquarters in Washington DC, Chicago, and Kansas City. People are flying in and being connected by conference calls to participate in what is happening in North Carolina.

NCAP activities and work by our members are receiving recognition in national publications.

- The December issue of *JAPhA* featured four articles by NCAP members.
- The January issue of *APhA Today* focused on workplace and universal prescription cards and had comments from four NCAP members.
- The February issue of *JAPhA* will have updates on North Carolina activities related to credentialing and more results from the Asheville Project.
- *Pharmacy Times* is preparing another full supplement on asthma care initiatives in our state.
- Two pharmacy technicians received recognition in the November/December issue of *Community Pharmacist.*
- The December issue of *The Consultant Pharmacist* (The Journal of ASCP) published two articles by NCAP members.
- The cover story in the December issue of *America's Pharmacist* was written by an NCAP member.
- The lead story in the November *ASHP Newsletter* highlighted work by an NCAP member.

Those outside of North Carolina want to know how they can make positive things happen in their states and on a national level. We must be doing something right to attract all this attention.

Prescription benefit plans are also getting attention. We have been busy coordinating feedback from pharmacists on the new state employees' plan, the Children's Health Initiative, and monitoring discussions on both the state and national level about the proposals for a drug benefit for Medicare recipients. Based on recent information from the president, congress, PhARMA, and national pharmacy leaders, there is a possibility that something could happen this year in Washington DC to establish the framework for a Medicare drug benefit. NCAP's position is that reimbursement for dispensing must be reasonable and the benefit should include compensation for pharmacists' clinical services. We would prefer a plan that is operated at the state level with reimbursement at least at the state employee plan rate. This position is based on the premise that we promote patient choice of access for medications and that pharmacists play an essential role in appropriate use of medications and prevention of adverse drug events. The NCAP Legal and Public Affairs Council is staying on top of these developments and we will need the help of every member to get our voice heard by the legislators.

Attention is the key for Pharmacy in the rapidly changing landscape of health care management and reimbursement. NCAP has now given pharmacy the attention we desired and it's up to all of us to speak with one voice and one vision. Thanks for helping us get off to a great start.❖

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Kevin L. Almond
NCAP President

Dear Colleagues,

NCAP exists to unite, serve, and advance the profession of pharmacy for the benefit of society.

This mission statement is just over fifteen words and sounds relatively simple. But believe me, it's not. I'm sure if any of our readers spent just five minutes pondering that statement most would say, "Impossible!" While difficult, preposterous, incomprehensible or maddening might be apt modifiers, impossible it's not.

To understand why not, a little time must be spent analyzing the composition and structure of NCAP. Though four professional associations were consolidated to create the single organization, its membership has an even broader scope of representation—one that better defines the vast array of opportunities for bearers of pharmacy degrees. The top four officers practice in academia, health systems, senior care, and clinical research environments and have all worked in other segments of the pharmacy profession. The chairs and vice chairs of our **four councils**, as listed on our website, have the following representation: 2 health systems, 1 academic, 1 consultant, 1 community independent, 1 chain executive, 1 industry representative, and 1 wholesaler. These councils are responsible for recommending policy and identifying issues that the **Board of Directors** should act upon. While current practice environment and legislation will decide some of this work, most is dictated by the three-year **strategic plan**.

The three-year strategic plan was devised after a year of task force work that culminated in a daylong retreat in Greensboro. Many speculate that it's closer to a five-year plan, because of its aggressive and challenging content. The three-year moniker recognizes the fact that pharmacy, health care and technology are moving at a faster pace than anyone can fathom or predict. Rapid changes give us impetus to review the plan leading into the third year, make recommendations, and have a new three-year plan available at the end of year three.

As a professional association we are membership driven—we operate from the bottom up, not the top down. Better communication to and from the membership at statewide meetings, local meetings, by Internet, and by mail will be key to any successful association in the 21st century. Service in **practice forums** and through the formation of our **House of Delegates** will give us a better opportunity to hear from all practice arenas (a discussion of delegates and forums will be in the next issue of *North Carolina Pharmacist*). We will also work closely with the faculty and students from our Schools of Pharmacy. This will help us provide quality continuing education and allow us to stay abreast of trends in professional education, hear concerns from those entering the profession and ensure that a giant chasm does not evolve between education and practice.

This is all to say that 2000 in North Carolina pharmacy will be a year of change and innovation and challenge. The Board and councils are committed, and we need our membership to be committed as well. Should you have questions or concerns, please feel free to e-mail or call any of the Board Members. Pharmacy is a multi-faceted profession that seeks to provide quality health care services to the public. With that goal in mind, we need to know and we want to know your concerns.

Sincerely,
Kevin L. Almond
NCAP President

...applying drug knowledge to improve health

Asheville Project Update:

Results Continue to Exceed ADA Goals

The Asheville Project continues to grow and make a difference in the lives of patients.

Most readers of the *North Carolina Pharmacist* are probably familiar with the Asheville Project, but a little background may be helpful.

A strategic planning meeting of state pharmacy leaders in 1995 resulted in a decision to sponsor pharmaceutical care demonstration projects in North Carolina.

by Barry Bunting

At the time a lot was being said about "Pharmaceutical Care" in pharmacy circles but practical models, especially in community settings, were lacking. The purposes of these projects were to be at least twofold. First, to develop practical working pharmaceutical care models. And secondly, to demonstrate the value of utilizing community pharmacists to provide pharmaceutical care services in improving patient care. If these projects could successfully develop practice models that measurably improved patient outcomes, the model could then be expanded and the data used to lobby for payment from a variety of payers.

The first project was begun in Asheville early in 1997. The City of Asheville agreed to partner with the North Carolina Center for Pharmaceutical Care (NCCPC), which had been formed to plan and implement these projects.

NCCPC offered to train community pharmacists in diabetes management and to offer pharmaceutical care services for city employees with diabetes. They offered to arrange that this be done for the first six months at no charge to the city. Then if measurable clinical and financial improvements could be demonstrated, NCCPC would negotiate with the city for payment for the services.

The city agreed to offer incentives for employees with diabetes to participate in this "wellness program." These included waiving employee co-payments on all diabetes-related medications and supplies. They also agreed to pay 100% of the cost of a formal diabetes education program offered by the Education Center of Mission St. Joseph's Health System (MSJ).

Employees who enrolled in the program agreed to go through this formal diabetes education program if they had not previously had formal education, or if it had been more than two years prior. They also agreed to meet on a regular basis, usually every month, with one of the specially trained pharmacists, who they selected from a list of those who had gone through the training.

Pharmacists who were interested in participating in the project agreed to receive training in the management and monitoring of diabetes. They also agreed to the arrangement of providing pharmaceutical care services at no charge for six months. Initially all pharmacists in the greater Asheville area were sent a letter informing them of the program and availability of training. The original training program attracted twenty-four pharmacist participants who went through a two weekend, thirty-two hour, program in diabetes. This was arranged by NCCPC with the assistance of The University of North Carolina, Campbell University, six area physicians and The Diabetes Center of MSJ.

In May of 1997, 21 pharmacists participated in a certificate program in asthma, and in November, enrollment began for city employees with asthma. In October 1998, *Pharmacy Times* published a supplement on "The Asheville Project" which reported significant improvement in clinical, financial, and humanistic outcomes for the diabetes project patients.

In November of 1998, 19 pharmacists participated in another asthma certificate program and in January of 1999, 20 pharmacists participated in a diabetes certificate program.

Early in 1999 a second employer was added to the program. Mission St. Joseph's Health System, the largest employer in Western North Carolina, with approximately 10,000 covered lives, agreed to offer the pharmacy sponsored wellness programs in diabetes and asthma.

Current Status

As of January 1, 2000 there are 165 patients being followed by program pharmacists, 121 with diabetes and 44 with asthma. Twenty-two pharmacy locations in the greater Asheville area currently provide these services and 65 individual pharmacists have been trained. Many pharmacists have participated in both diabetes and asthma training, and a number of trainees have been from outside of the Asheville area and even from other states.

Outcome Highlights

For pharmacists a significant early outcome came within a few months of beginning the project when the city, having received a great deal of positive feedback from their employees, voluntarily began paying the pharmacists, even before objective patient data was available.

We were understandably anxious for comprehensive outcomes data which came after a full year of the program. Fortunately this data confirmed the subjective observations. Average hemoglobin A1c results for the 40 City of Asheville employees decreased from 7.6% to 6.2%. Total cholesterol averages dropped from 210mg/dl to 198 mg/dl. The LDL average decreased from 118 mg/dl to 98 mg/dl. All of these averages exceeded the American Diabetes Association goals of <7% for hemoglobin A1c, <200 mg/dl for total cholesterol, and <100 mg/dl for LDL. Health status and satisfaction with pharmacy also improved significantly. In addition, the city spent nearly $20,000 less on total healthcare costs for these 40 employees during the first year of the program compared to the previous baseline year. Equally impres-

sive was the finding that the average participant worked 6.5 more days during the project year compared to the prior year. The city quantified the monetary value of this at approximately $18,000.

Second year data for this original group of 40 diabetes patients is just now becoming available. Although analysis is still being conducted we are pleased to publish, for the first time, some of these results. After two full years in the program ADA goals continue to be surpassed. The group's hemoglobin A1c average continues to be below 7%, at 6.8%. The total cholesterol and LDL averages have decreased even below one year levels. The total cholesterol average is 190 mg/dl and the LDL is 94 mg/dl.

The significance of sustained two-year improvement cannot be overemphasized. It is extremely important for pharmacists to not just demonstrate their ability to improve clinical parameters, education alone can do that, but to demonstrate that a pharmacist-patient relationship can sustain this improvement. We are, after all, attempting to prove that pharmaceutical care is a cost-effective intervention that will reduce long-term complications of diabetes. Risk reduction is something that is not attainable without prolonged improvement in blood glucose control. Unfortunately this level of control is often associated with high resource, high expense programs. Notably, the 1,400 patient, 10 year, landmark Diabetes Control & Complication Trial (DCCT) stated in their concluding paragraph, "Intensive therapy was successfully carried out in the present trial by an expert team of diabetologists, nurses, dietitians, and behavioral specialists, and the time, effort, and cost required were considerable. Because the resources needed are not widely available, new strategies are needed to adapt methods of intensive treatment for use in the general community at less cost and effort." If someone were searching for a simple description of community based pharmaceutical care it could easily be referred to as a "new strategy," "widely available," "in the general community," "at less cost and effort." And at two years the Asheville Project results continue to exceeded ADA goals by using "widely available resources" with relatively little "time, effort, and cost."

More Outcomes

Also, for the first time, we have asthma outcomes to report. Of the 44 asthma patients currently enrolled in the City of Asheville and MSJ programs 25 have been in the program at least six months. The most significant improvement has been in the MSJ group, which interestingly had significantly poorer baseline respiratory function than the city employees. This is an especially interesting finding in light of the fact that health system employees would be expected to be more knowledgeable about their asthma, and perhaps even have better access to care. The MSJ group's baseline FEV1 (Forced Expiratory Volume in 1 second) average was 64%, compared to a baseline of 84% for the city group. Both groups improved significantly, the MSJ average improving from 64% to 88%, and the city average from 84% to 98%. There were also significant improvements in the "Role Physical" health status indicator, which is a measure of the impact of their disease on their physical ability to function normally on a day to day basis. At baseline the MSJ patients reported that asthma limited their daily activity an average of 4.5 days in the previous month. After being in the program this number decreased significantly to 1.5 days per month. Additionally, at baseline, only 10% of enrollees had a National Asthma Education Program (NAEP) recommended "asthma action plan." As a result of the program 100% of enrollees now have individualized asthma action plans.

Further analysis is being conducted on both the diabetes and asthma groups. A supplement to *Pharmacy Times* in March, 2000 will include data on not only the Asheville Project, but on other pharmacy asthma initiatives in the state. And now that two-year data are available on the diabetes group, our plan is to publish comprehensive results in a peer reviewed journal this year.

Asheville Project Coordinator Barry Bunting, PharmD, explains the importance of managing diabetes to a patient.

In The Works

The City of Asheville has been so pleased with the program's results, they are asking us to provide a similar service for their employees who have hypertension and/or hyperlipidemia. They would like for pharmacists to start seeing patients in April and have identified over 200 employees whom they believe will qualify for the program. We currently are very busy with program planning and are preparing training programs for pharmacists.

Lessons Learned

Each disease is different. People with diabetes seem to be highly motivated to participate in wellness programs. We had almost 100% enrollment of patients who were offered the diabetes program. However, with asthma the enrollment was closer to 25%. Approximately 75% of asthmatics have infrequent symptoms and presumably it is harder to interest them in wellness programs than someone with diabetes who has constant daily reminders of their disease. And we suspect that enrollment for programs in hypertension and hyperlipdemia, which

are virtually asymptomatic, may be even lower. Our current thought is that we may need to modify our enrollment approach to include risk awareness education prior to enrollment. And perhaps the incentives will need to be different.

Follow the money. This sounds a little mercenary but the genius of the Asheville Project was the foresight of North Carolina pharmacy leaders to realize the need to begin by partnering with a self-insured payer. Whether it was consciously spoken, or intuitive, the question they asked was, "Who stands to benefit the most financially if employees live healthier lives?" The answer was "employers." So this is where they started. Under the traditional U.S. model employers basically pay 80% of an employee's health care costs and, therefore, have a huge stake in reducing overall health care costs. So approaching a self-insured employer rather than, for example, an insurance company, avoided a middle man who would have very likely said "no."

Inform and connect. Although there are pros and cons to this method, our general approach with physicians has been to inform them of the program, but not necessarily ask them to give their blessing to every step of the process. If individuals, and their employer, choose to participate in a wellness program it is their choice. After all it is their money. And even the 20% share that U.S. employees pay out of their pockets every year for health care amounts to approximately $265 billion. So they also have a vested interest in lowering health care costs. The first step in informing physicians about the program was a letter sent by the city's medical director, who was involved in the planning of the program, to all the physicians in the community who cared for patients with diabetes. This letter informed them of the intention of the city to offer their employees a wellness program that included incentives for patients to comply with the physician's treatment plan. The letter also explained that the program would include the use of specially trained community pharmacists to monitor these patients and assist them with self-management aspects of their disease. Physicians receive a copy of all program related laboratory information, and spirometry results, as well as summary letters and individual patient recommendations from the pharmacists. There has been amazingly little negative feedback to this approach and what did occur was handled by the city's medical director or the coordinator of the project. The primary fear of physicians has been that this was just another group "trying to tell them how to practice medicine," and that it would further "fragment care." It has been helpful to be able to emphasize that these were local pharmacists, who had received special training by local physician experts, and who were simply acting as an extra set of eyes and ears for the physician. Also we point out that patients already see pharmacists five times more often than any other health care provider and that in this program the participating pharmacists were committing to take time to make that interaction more useful to both the patient and physician.

"...the genius of the Asheville Project was the foresight of North Carolina pharmacy leaders to realize the need to begin by partnering with a self-insured payer."

No lone rangers. We can do many things well but we should not attempt to do everything. A good example of this is our partnership with the Certified Diabetes Educators in the Asheville area to offer a comprehensive education program for patients. Pharmacists in the project do not do extensive diet instruction. Pharmacists are in an excellent position to assess whether patients have comprehended and are applying diet instruction that they receive from CDEs. However, we have not attempted to train pharmacists to be experts in diabetic diet instruction. That is not to say that some pharmacists may have the interest to become experts or of necessity need to be this type of resource in areas that lack CDEs. But our philosophy has been to connect-the-dots, not duplicate them. We each need to do what we do best. Physicians need to continue to diagnose and prescribe good treatment plans. Professional educators need to continue to assist patients in learning self-management skills. Pharmacists need to monitor adherence, efficacy, side effects, and assess/supplement patient knowledge. And we all need to communicate with each other. Due to pharmacy's tremendous edge in accessibility and medication knowledge, pharmacists have an opportunity to position themselves as unique and valuable health care providers.

Novelty vs. practice. We are rapidly approaching a critical phase in pharmaceutical care in Asheville and perhaps in the state. We have demonstrated that payers are willing to buy what we have to sell. It is time, as the saying goes, to "fish or cut bait." We have proven the boat will float but we still have one foot in the boat and one on dry land. It is not clear at this point how many pharmacists are in a position to step into the boat or even know how to do it. But a couple of models appear to be evolving that offer hope that this step can actually be taken by a critical mass of pharmacists.

"Hired gun chain model." "Dual-hat independent model." The ideal model we envisioned several years ago now seems a bit naïve. Some of us had hoped that a large enough number of pharmacists could be trained in a region that virtually every pharmacy would have a pharmaceutical care provider with expertise in a variety of disease states. However, with the shortage of pharmacists, the need for multiple expensive certificate programs, and a finite number of highly motivated pharmacists, this "ideal" model has some problems. As the reality of this has set in we have had to look at different ways of making this work. We may achieve the ideal model some day but in the interim we need different models. Two of these seem to be evolving in our area.

The "hired-gun chain model" may be an answer for busy chain stores who are having difficulty staffing their stores, let alone providing pharmaceutical care. We currently have a pharmacist experimenting with an approach that provides pharmaceutical care at several locations for a chain. They have contracted with

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the chain to provide the service. This pharmacist makes appointments to meet with program patients at a time that is convenient for the patient and themselves. This allows the pharmacist to group appointments at particular locations on particular days. This model provides the prospect of highly motivated pharmacists earning a living providing pharmaceutical care on a contract basis. For the patient this has the advantage of offering a greater number of pharmacy locations to choose from. For the chain it provides store traffic, builds customer loyalty, and they do not have to worry about staffing, scheduling, training expense, or finding enough motivated pharmacists. A similar scenario that is also being explored in Asheville is a pharmacist who has been hired by a chain who will be given blocks of time at specific stores on specific days to provide pharmaceutical care services.

The "dual-hat independent model" is probably best described in the words of one of our program pharmacists, Bill Horton, owner of the PSA Beverly Hills Pharmacy in Asheville. Bill's response to being asked if he was too busy to accept any more project patients was, "You can't send me too many patients! I would love to have enough pharmaceutical care patients that I have to hire someone to run the store. Then I can spend most of my time providing pharmaceutical care, which is what I want to do anyway." This attitude, if shared by enough pharmacists, may offer a partial answer to the critical question, "How does pharmacy make the transition from the current commodity based practice to a patient care practice?" Bill's comment illustrates how it is possible to transition a practice as the income from the pharmaceutical care side grows to the point where one is able to support hiring extra help. Independents in particular have the advantage of flexibility in being able to make this decision without having to deal with corporate red tape. From a program coordinator's perspective, it will take relatively few such independent pharmacists, and/or individuals contracting with chains, to provide a good geographic distribution of pharmacies. This will allow aggressive marketing of a network of such providers to employers or other payers in a region. This is currently our strategic plan.

It is not rocket science. Yes, there is considerable expertise in providing pharmaceutical care, but pharmacists already possess most of that expertise. A motivated pharmacist can supplement his/her knowledge and skills with a reasonable investment of time and effort. As for compliance monitoring, counseling, and education, most pharmacists are already capable of functioning at high levels of competence. It is noteworthy that of the core group of pharmacists who have been responsible for a majority of the great outcomes in the Asheville Project none had the Doctor of Pharmacy Degree. And most had been out of school long before pharmaceutical care became a buzzword. But what they did have was interest, motivation, and experience. We believe good outcomes are as much a result of the relationship as they are pharmaceutical care expertise.

Conclusion

There are literally millions of Americans who need help which pharmacists are capable of giving. We can make a difference. But this takes time, time which pharmacists cannot afford to take unless they are paid to provide the services. The Asheville Project has demonstrated that there are payers who are willing to pay pharmacists to provide these services. This is because it has also demonstrated that pharmaceutical care services do make measurable clinical and financial differences. However, if this is to become more than just a regional phenomena, others will need to pursue opportunities in their own communities. Opportunities will differ from community to community, and one approach will not work for everyone, but there should be some common elements. It is our hope that sharing some of our experiences will help others float their boat. ❖

About the Author...
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DCHP Replicates Asheville Project

Approximately one year ago, the North Carolina Center for Pharmaceutical Care (NCCPC) began work to "replicate" the Asheville Project in other North Carolina communities. This effort is known as the Diabetes Community Health Project (DCHP). The initial goal of the DCHP was to implement the project in 5 of 10 potential communities. The list of 10 potential communities quickly grew to 15 committed communities. Pharmacy leaders, interested community pharmacist-providers and potential payers for each community were identified. The other goal of the DCHP was to develop the components of a "tool kit," which would serve as a complete set of materials for use by pharmacists that would allow for ease of implementation of the DCHP in participating communities. Overall, there has been a tremendous community response, and NCCPC anticipates initiation of the first program in the summer of 2000.

The following communities and leaders are actively spearheading this effort.

Charlotte	Joan Settlmeyer	Fern Paul-Aviles
Concord	Sandy Robertson	Joe Moose
Durham	Jennifer Burch	Philip Rodgers
Erwin	Neil McPhail	Alyce Holmes
Gastonia	Steve Novak	John Anderson
Graham	Kent Tapscott	Kent Tapscott
Greensboro	Robert Ashworth	Jennifer Sutton
Greenville	Jim Worden	Tim Woolard
Lumberton	James Carroll	Susan Brown
N. Wilkesboro	Genia Key	LaMar Creasman
Nashville	Gary Glisson	Laura Brewer
New Bern	George Davis	Dave Davis
Raleigh	Connie Nance	Matthew Mielke
Wilmington	Davie Waggett	Beverly Clark
Wilson	Frank Yarborough	Dawn Jennings

These pharmacist-leaders are currently working on the following tasks:

- Identifying interested pharmacists,
- Coordinating diabetes certificate training for committed pharmacists,
- Identifying and approaching prospective self-insured employers,

In addition, NCCPC has built relationships with several key North Carolina agencies in recent months. These agencies, listed below, have expressed interest in collaborating with NCCPC on the DCHP in various capacities.

- North Carolina Medical Society - interested in endorsing and collaborating on the DCHP pending adoption of the Clinical Pharmacist Practitioner Act regulations
- United Health Care - expressed interest in collaborating on the DCHP in target communities
- North Carolina Association of Health Plans - extended invitation to NCCPC to attend their Medical Directors' meeting in February 2000 to present the DCHP and discuss how the managed care organizations may be able to collaborate with NCCPC on the project
- Medical Review of North Carolina – interested in collaborating with NCAP on the DCHP in some eastern North Carolina sites (*see related story, page 18*)

Dan Garrett, Executive Director of NCCPC, says, "This is an excellent opportunity for pharmacists to demonstrate how they can make a difference. The exciting part is that many other states and professional agencies are looking to North Carolina for the template because the initial efforts of the pharmacists involved have been so successful."

The DCHP can be described as a community-based project that is an expanded and refined version of the Asheville Project, the diabetes care model which integrated pharmacist counseling and intervention into traditional care. The overall project is designed to improve the clinical, economic and humanistic outcomes of patients with diabetes, by:

- Improving the health and productivity of people with diabetes,
- Reducing the short- and long-term complications associated with diabetes, and
- Reducing the payer's overall healthcare costs for diabetes.

The DCHP involves a network of community pharmacists throughout North Carolina who undergo intensive diabetes training to improve their ability to work cooperatively with community physicians, certified diabetes educators, other healthcare providers, and healthcare payers. Each pharmacist-provider is integrated into an already-established diabetes network to form a 1:1:1 relationship involving the patient, patient's physician, and pharmacist. The pharmacist can help people with diabetes better manage their disease by:

- Providing individualized education and counseling,
- Encouraging proper diet and exercise,
- Teaching the correct techniques for monitoring blood glucose and emphasizing its importance to overall health and well-being,
- Providing communication linkage between people with diabetes and their physicians.

The pharmacists also obtain reimbursement for the diabetes counseling services they provide in the community pharmacy setting and establish a means of collecting outcomes data to demonstrate the value of the DCHP.

If you would like to take part in one of the above local efforts and are interested in obtaining the contact information of the designated pharmacist-leader(s) in your area, or if you would simply like more information about the DCHP, please call Beth Williams at 800.852.7343.❖

Workplace Issues Discussed at Leaders Forum

On February 4-6, 2000, pharmacy leaders met at the Grandover Resort and Conference Center in Greensboro for the annual North Carolina Board of Pharmacy Leaders Forum. The focus of the session was a conference devoted to discussion of workplace issues. The meeting was opened by Robert Crocker, NC Board of Pharmacy President, and moderated by Regina Schomberg and Gray Stewart, co-chairs of the North Carolina Association of Pharmacists (NCAP) Workplace Issues Task Force.

The Workplace Issues Task Force was formed as a direct result of the NCAP Resolution Statement on Workplace Issues adopted in May 1999. The group was charged with planning a conference to discuss workplace issues in North Carolina. Members of the task force include: Rodney Cline, Beverly Lingerfeldt, David Rumberg, Mark Gregory, Margaret Sgritta, Fred Eckel, Brian Gallagher, Davie Waggett, Larry Swanson and Jennifer Carroll.

by Regina Schomberg

All participants in the conference received an information packet, which included a copy of the NCAP Workplace Issues Resolution Statement and the White Paper, *"Implementing Effective Change in Meeting the Demands of Community Pharmacy Practice in the United States."* Co-written by the National Association of Chain Drug Stores (NACDS), American Pharmaceutical Association (APhA), and the National Community Pharmacists Association (NCPA), the White Paper served as the outline for discussion of workplace issues. Brian Gallagher, Director or Pharmacy Regulatory Affairs for NACDS, and Jann Skelton, Senior Director of Professional Practice Development for APhA, presented their organizations' views on the White Paper. Whit Moose, NC Board of Pharmacy member, elaborated on the views of NCPA. Meeting participants also heard presentations from local pharmacists and technicians representing different areas of practice. Julie Cline, Tom Mansbery, Phil Stafford, Aaron Wright, Alice Foust, and Angela Wagner all discussed their individual perspectives on stress in the workplace, barriers to providing patient care, and suggestions for help from pharmacy leaders.

After hearing from all the day's presenters, forum participants met in small group sessions to identify critical issues that need addressing in order to improve workplace issues. Automation and technology, shortage of pharmacists, enhanced role of pharmacy personnel, third-party issues, public health and safety, and the dual role of dispensing and pharmaceutical care were the topics defined by the groups. Short-term and long-term solutions were defined for each of these issues and responsibilities were assigned to larger bodies to assist in solving those problems addressed. At the end of the conference, leaders voted for the three solutions that they deemed most important to improving workplace issues.

The goal of the conference was to create a working document prioritizing issues and identifying solutions with accountabilities. The Workplace Issues Task Force will reconvene to develop such a document as well as to implement necessary actions and monitor results. Once completed, the workplace issues document will be summarized on the NCAP website and published in the *North Carolina Pharmacist*. Stay tuned for continued progress reports on workplace issues. ❖

About the Author...
Regina Schomberg, PharmD, Pharmaceutical Care Coordinator, Internal Medicine, Wake Forest University Baptist Medical Center, is Co-chair of the NCAP Workplace Issues Task Force. She can be reached at schomberg@wfubmc.edu

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NC Center for Pharmaceutical Care Hears Recommendations on Credentialing

The North Carolina Center for Pharmaceutical Care (NCCPC) hosted a Credentialing Symposium on December 15, 1999. State pharmacy leaders and national organization representatives endorsed the following primary outcomes of the meeting: 1) to shift credentialing to a "generalist" approach versus a disease state management approach; 2) to promote portfolio-based credentialing, recognizing established standards; and 3) to support NCCPC in a primary pharmacy role in establishing the Clinical Pharmacist Practitioner standards.

The purpose of the meeting was to assess the current NCCPC certificate program approval process and credentialing standards. With the advent of national standards in these areas and recent state events, the meeting represented a critical opportunity to either validate or revise NCCPC's credentialing standards. Twenty-four state and national pharmacy leaders attended the meeting. The national pharmacy organizations represented include ACCP, ACPE, APhA, CCGP, NCPA, and NACDS. A representative from each organization presented a brief overview of the organization's position on credentialing standards. ASHP and BPS provided written position statements.

by Beth Williams & Cathy Teat

Fred Eckel, the Center's President, reviewed the current NCCPC credentialing standards and presented a status report on the NCCPC registry of certificate holders (see tables on page 15). Currently, there are 346 pharmacists in North Carolina who have completed an NCCPC-approved certificate program, with approximately 80 pharmacists in the process of completing an approved program. NCCPC has approved certificate programs in the areas of anticoagulation, asthma, diabetes, hypertension, preventive cardiology, smoking cessation and women's health. The process for approving a certificate program is governed by the Certificate Program Review Committee (CPRC) of the NCCPC. An approved program must demonstrate the acquisition of new knowledge, the development of skills, and the application of knowledge and skills to practice through experiential training.

In addition to certificate programs, NCCPC currently recognizes those pharmacists who are board-certified by the Board of Pharmaceutical Specialties (BPS). Prior to the BPS' 1999 examination, there were 138 North Carolina pharmacists holding this credential. Two other national credentialing examinations that were presented for consideration of NCCPC recognition are the Certified Geriatric Pharmacist (CGP) and NABP Disease State Management (NABP DSM) exams. Currently, there are 19 CGP-certified pharmacists and 38 NABP DSM-credentialed pharmacists in North Carolina. The North Carolina Board of Pharmacy is one of 20 state Boards that administers the NABP DSM exams in each of four areas of disease state management, including anticoagulation, asthma, diabetes and dyslipidemia.

Dan Garrett, the Center's Executive Director, provided background on the Clinical Pharmacist Practitioner Act, which became law on July 14, 1999 and introduced modifications to the North Carolina Medical Practice Act. The suggested regulations for the Clinical Pharmacist Practitioner (CPP) were also reviewed, which require that an applicant meet one of the options listed below for consideration as a CPP:

1. Pharmacists who have earned certification from BPS or CCGP;
2. A PharmD degree plus an ASHP-accredited residency;
3. A PharmD degree plus one NCCPC-approved certificate program;
4. A PharmD degree plus one year of experience, letters of recommendation from two physicians who are familiar with the applicant's clinical experience;
5. A BS degree in Pharmacy plus two NCCPC-approved certificate programs;
6. A BS degree in Pharmacy plus three years of experience, letters of recommendation from two physicians who are familiar with the applicant's clinical experience.

In every case, the CPP applicant must have a letter from a licensed physician who is willing to work collaboratively with the CPP, under the rules to be developed by the Medical Board and Board of Pharmacy.

Following the presentations, each participant attended one of six groups to discuss critical credentialing issues. The following is a summary of each group's recommendations, which will be presented to the NCCPC Board who will determine the best action for the organization to take on these issues.

A. What changes, if any, are needed to improve the current NCCPC certificate program guidelines to assure competent pharmaceutical care providers?

1. Continue NCCPC criteria for NC-produced programs through 2002.
2. Allow pharmacists who complete an ACPE-approved certificate program to be listed in the NCCPC registry

B. Considering the Clinical Pharmacist Practitioner (CPP) regulations, what role, if any, should NCCPC play with the Boards of Pharmacy and Medicine?

1. Recommend NCCPC play a primary pharmacy role for developing regulations
2. Consider adding representatives from the Boards of Pharmacy and Medicine (an MD specifically), as well as a payer representative, to the NCCPC Board
3. Recommend deleting qualifications based on certificate programs only from the list of suggested CPP regulations because they are disease specific
4. Recommend changing from 3 to 5-years experience for BS degree qualification

C. What changes to the NCCPC Certificate Program Review Committee (CPRC) should be made to ensure proper oversight and acceptance of NCCPC standards?

1. No changes to CPRC
2. Form sub-committee of disease state specialists (Physicians, Pharmacists, Educators) to design content and competency standards for each disease state and develop a check list
3. CPRC Certificate Program Approval Form should list required standards

D. What role should NCCPC play as disease state management programs evolve to general pharmaceutical care programs?

1. Exert influence/shift more emphasis to "generalist" vs. specific disease
2. Should be achievable with reasonable effort on part of average practitioner
3. Convene a panel to establish generalist criteria, and provide direction to education/training programs
4. Recognize temporary nature of the mission

E. What opportunities are there for NCCPC to work with other pharmacy credentialing options, e.g. NABP, BPS, CCGP, ACPE, residencies/fellowships?

1. Portfolio-based credentialing is preferred and should include knowledge and practice application
2. Portfolio-based credentialing should recognize established credentials, such as ASHP residency, CDE, ACPE-approved certificate program plus NABP DSM exam, BPS, CCGP, etc.

F. NCCPC has recommended a 7-year renewal requirement for current NCCPC-approved certificate programs. What should NCCPC consider for implementation of renewal options?

1. Didactic options:
   - 2 hours/year disease-related CE
   - 6 hours over 3 years per disease
   - Option to sit through didactic portion of certificate program (live or videotape)
2. Skills options:
   - Submit 5 cases/year
   - Participate in certificate program case portion (12 hours over 3 years)
   - Multiple disease patients can count for multiple recert cases
3. Develop core curriculum for home study, test; offer skills lab more frequently ❖

Summary of Pharmacists Listed in the NCCPC Registry of Approved Certificate Programs
12/15/99

Certificate Program	# Pharmacists in Registry	# Pharmacists in CP's Currently in Progress
Anticoagulation	22	
Asthma	113	~ 30
Diabetes	129	~ 50
Hypertension	11	
Preventive Cardiology	44	
Smoking Cessation	21	
Women's Health	6	
TOTAL	**346**	**~ 80**

NC Pharmacists Passing National Credentialing Examinations

Examination	# NC Pharmacists
BPS[1]	138
CGP	19
NABP DSM[2]	38
Anticoagulation - 7	
Asthma - 10	
Diabetes - 15	
Dyslipidemia - 6	
TOTAL	**195**

[1]
[2] Does not include 1999 test results
Does not include December 1999 test results

About the Authors...

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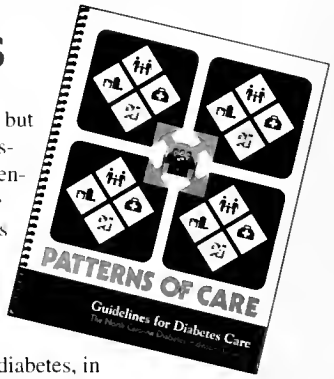
Diabetes Advisory Council Releases *"Patterns of Care"* Guidelines



Diabetes mellitus is a major health problem in North Carolina. Over 500,000 residents suffer with the disease; one third of whom are undiagnosed. Diabetes is a significant risk factor for cardiovascular disease, the leading cause of death, and is the most common cause of blindness, non-traumatic amputation and renal failure. The prevalence of diabetes is increasing in the state, especially among Native, Hispanic and African American populations that are particularly vulnerable to diabetic mortality and morbidity. A significant amount of our state's health care resources are spent treating the illness and the many complications that accompany long-term affliction.

The results of several recent studies, including the 1993 report of the Diabetes Complications and Control Trial and 1998 reports of the United Kingdom Prospective Diabetes Study, provide ample evidence that, with proper glycemic control and other health interventions, the burden of diabetes and its complications may be greatly reduced or delayed. Close adherence to appropriate health care offers major benefits both to people with type 1 and type 2 diabetes mellitus.

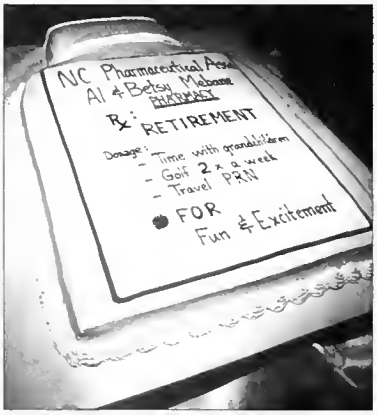
In 1995, the North Carolina Diabetes Advisory Council appointed the Patterns of Care Task Force to prepare guidelines for those who care for persons with diabetes in North Carolina. The Task Force, assisted by staff from the North Carolina Department of Health and Human Services and the Centers for Disease Control and Prevention, surveyed, reviewed and revised recommendations from major professional organizations as represented by members of the Task Force. This review process particularly concentrated on the CDC's The Prevention and Treatment of (Five) Complications of Diabetes-A Guide for Primary Care Practitioners and Clinical Practice Recommendations updated yearly by the American Diabetes Association.

The resulting *Patterns of Care: Guidelines for Diabetes Care* closely follows the format and accessibility that distinguishes the CDC publication but has been updated to be consistent with the ADA's recommendations. The guidelines have been designed not so much as standards of care but as recommendations that will support primary care providers, other health professionals, families, and those with diabetes, in their efforts to improve health status and to minimize risk of future complications.

Keeping the guidelines continuously reviewed and updated will be an ongoing challenge. To support this process, periodic updates will be available on the internet in the upcoming months. Task Force members and staff from the NC Diabetes Prevention and Control Unit (DPC) are currently involved in statewide dissemination of the guidelines to primary care providers, pharmacists, nurses, dietitians and other health care professionals. Efforts to encourage Medical Directors from Managed Care Organizations across the state to adopt the guidelines within their respective plans have been successful. The document is also being distributed to practitioners through professional schools and associations including the North Carolina Association of Pharmacists.

To obtain a copy of the guidelines send a check or money order payable to NCAP, and your shipping address (no PO Box), to Gabrielle Hokanson at NCAP. The charge per book is $5.00 to cover the cost of shipping and handling. If ordering more than five copies, please call Gabrielle at NCAP for exact shipping and handling amount. For additional information or to request training regarding the guidelines, contact Janet Reaves, RN, MPH, Education and Quality Assurance Specialist with the NC DPC, at 919.715.3131 or via e-mail at janet.reaves@ncmail.net. ❖

Mebanes Honored at Carolina Club Dinner



One hundred attendees donated over $14,000 to the Mebane Fund during a reception and dinner at the Carolina Club, at UNC Chapel Hill, November 19, 1999. The fund is named in honor of Al and Betsy Mebane and will be used for pharmacy students at Al's alma mater, UNC.

Ralph Ashworth served as master of ceremonies and speakers included Teamie West, Neta and Milton Whaley, Ruby Creech, Frank Burton, Joe Whitehead, Henry and Tracey Smith and Ray Wolf. The planning committee members were Joe and Ina Whitehead, Jimmy and Vivia Creech, Ruby and Grover Creech, Henry and Tracey Smith, and Ralph and Daphne Ashworth. The Mebanes were presented many lovely gifts at the dinner including a Steuben bowl, a president's coat-of-arms jacket, and a portrait of Al and Betsy which is displayed at the Institute.

If you would like to make a donation in honor of Betsy and Al please send it to:
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Collaboration to Impact NC Health Care

Recently, representatives from the Medical Review of North Carolina (MRNC) contacted NCAP to learn more about our diabetes project and to educate us about their organization in hopes that we could develop a strategy for collaboration. As described, MRNC is the agency that is commissioned by HCFA to oversee improvement in the "efficiency, effectiveness, economy and quality of Medicare services" offered in North Carolina. As a partner in their diabetes and general quality improvement projects, we not only have the opportunity to impact the quality of patient care, but also the opportunity to further demonstrate the value of pharmacist-supported health management to HCFA. We will keep you posted as details of our collaborative effort are finalized. In the meantime, if you have any questions or comments about this opportunity, please contact Dan Garrett at 800.852.7343.

Improving Health Care for Medicare

Medical Review of North Carolina, Inc., a nonprofit, physician-sponsored organization, has been designated by the Health Care Financing Administration as the Quality Improvement Organization/ Peer Review Organization for North Carolina. Its goal is to improve the efficiency, effectiveness, economy and quality of Medicare services.

MRNC is a community-based organization working in partnership in all settings with many different providers of the health care system to improve the quality of health care for all North Carolinians. Since 1993, MRNC has utilized cooperative projects to improve health care with the help of hospitals, physicians, other health care providers and Medicare recipients.

Beginning in February 2000 and extending over the next three years, MRNC will join PROs/QIOs across the United States in targeting six national priority areas: acute myocardial infarction, breast cancer, congestive heart failure, diabetes, pneumonia, and stroke/ transient ischemic attack/atrial fibrillation. Within each of these key clinical areas, MRNC will focus on specific quality indicators, or measurable aspects of care, which have been linked to better outcomes.

MRNC will work with the health care community to improve the health status of all Medicare beneficiaries with these clinical conditions. The long-term goal is to have the healthiest communities possible and the best outcomes for beneficiaries.

A random statewide baseline sample of records is currently being collected and analyzed by HCFA. Performance rates specific to each of the indicators will be available in the spring of 2000. MRNC will publish this information when it becomes available.

Priority Clinical Topic	Quality Indicators
1. Acute Myocardial Infarction	• Aspirin within 24 hours of admission • Beta blockers within 24 hours of admission • Time to reperfusion (thrombolytics or angioplasty) • Aspirin at discharge • Beta Blockers at discharge • ACE Inhibitors at discharge for low Left Ventricular Ejection Fraction (LVEF) • Documentation of smoking cessation counseling
2. Congestive Heart Failure	• Appropriate assessment of LVEF • ACE inhibitors for low LVEF
3. Pneumonia	• Initial antibiotic administration within 8 hours of arrival • Initial antibiotic consistent with current recommendations • Influenza immunization • Pneumococcal (PPV) immunization
4. Stroke/Transient Ischemic Attack/ Atrial Fibrillation	• Reduce inappropriate use of sublingual nifedipine in acute stroke • Antithrombotics for stroke/TIA patients at discharge • Warfarin for chronic atrial fibrillation
5. Diabetes	• Biennial retinal exam by an eye professional • Biennial testing of lipid profile • Annual HgbA1c testing
6. Breast Cancer	• Biennial Mammography

MRNC is asking the commitment of the entire NC healthcare community in reaching the goal of statewide improvement in care delivered within the national topic areas. For more information contact:
Jill McArdle, RN MSPH
Manager, North Carolina Health Care Quality Assessment
Medical Review of North Carolina, Inc.
919-851-2955

A Unique Approach to Improving Diabetes Care

In the first effort of its kind, Medical Review of North Carolina, Inc., has brought together both Medicare and Medicaid managed care plans from around the state to collaborate on ways to improve the treatment and management of diabetes.

Diabetes is the seventh leading cause of death in North Carolina and a major cause of lower extremity amputations, end stage renal disease and blindness in adults.

"As far as I know, this is the first collaboration of its type in North Carolina," said Bob Weiser, MRNC Director of North Carolina Operations. "We have been able to bring together each of the Medicare Health Maintenance Organizations and the North Carolina Division of Medical Assistance Access I, II and III programs and focus on improving the care for diabetic patients throughout our state."

This unique collaborative effort centers around QISMC, the Quality Improvement System for Managed Care. QISMC will establish certain performance levels on various standardized quality measures for both plans participating under the new Medicare + Choice program and the state Medicaid program. Each plan is required to participate in performance improvement projects under QISMC, and one project topic per year is mandated by the Health Care Financing Administration. Plans are able to select the topic (clinical or non-clinical) to be addressed for the other plan-specific project.

"It only made sense that we focus our efforts on a disease like diabetes, which impacts all aspects of the population in North Carolina," Weiser said. "We approached all the Medicare plans and encouraged them to work together on this topic. Once they agreed, we approached the state Medicaid program, and they were also very enthusiastic about participating."

By facilitating a coordinated effort among participating health plans based upon nationally accepted diabetes performance measures, MRNC hopes to improve substantially the care and management of diabetes, while reducing the burden on practicing physicians of multiple or competing demands from managed care organizations.

"We are trying to develop a consistent, systematic approach to meeting the guidelines that will assist physicians in providing quality care under many different plans in various types of ambulatory settings," said Kelly Goonan, M.P.H., Project Manager at MRNC. "If we do this well, (in two to three years time) we expect to see the treatment for diabetes improve for all (quality) indicators."

For more information on this project, please contact Bob Weiser or Kelly Goonan at MRNC, 919.851.2955. ❖

Remembering Hurricane Floyd:
The Experience of Four Pharmacy Practice Residents

On September 15, 1999, Hurricane Floyd hit eastern North Carolina flooding homes, disrupting lives and limiting access to medical care. Carolinians were evacuated into shelters often without their essential medications and supplies. Eight days later, the need for emergency pharmacy relief was relayed to Duke University Medical Center by the North Carolina Association of Pharmacists. An emergency meeting convened and a disaster plan was quickly devised. With support from both DUMC and UNC School of Pharmacy, boxes of medical supplies were collected. Pharmacy Administration provided a laptop computer equipped with drug information software and an emergency cellular phone for the trip. Within 24 hours, Duke University Health System Pharmacy Practice Residents Heather Tangeman and Michelle Giesler were packing to leave for Tarboro, with plans for relief by Mary Townsend and Tara Belden in five days.

Assisting in the hurricane relief effort are Duke University Health System Pharmacy Practice Residents (l to r) Heather Tangeman, Michelle Giesler, Tara Belden and Mary Townsend. They are standing in front of the Medical Triage tent staffed by SORT at the Emergency Operations Center in Tarboro.

While in Tarboro, Kinston, and the surrounding flood areas in eastern North Carolina, we worked in close affiliation with the Special Operations Response Team (SORT). SORT is a Winston-Salem based team of health-care volunteers comprised of physicians, nurses, physician assistants, paramedics and a pharmacist trained to respond to natural disasters. The Emergency Operations Center (EOC) at the Tarboro Sheriff's Department and Detention Center and the National Guard Armory in Kinston were the centralized areas of activity. Activities during the week included: organization of medications and supplies, preparation of medication kits for outreach clinics, administration of vaccines, assessment of medication needs in shelters, medication substitution based on available supplies, patient counseling and drug information, blood pressure and diabetes monitoring, and patient referral to physicians.

The experience was one-of-a-kind: unbelievable and exciting when sleeping in a prison cell and riding in military helicopters; professionally stimulating as we administered vaccinations from a van in a low-income housing community and provided discharge medication counseling from a church renovated into an emergency room; personally rewarding as we played with kids staying in a high school shelter and provided emotional support to members of the community. It was an experience we will remember with mixed emotions and regard with deep appreciation.

"Mass devastation, sadness, years of hard work destroyed, and little hope for the future – these are the feelings one is left with after witnessing the aftermath of Hurricane Floyd. Many were happy, relieved, and thankful for the help volunteers provided to them until they could pick up the shattered pieces of their lives. Pharmacy interventions and medical help prevented many medical misadventures from transpiring. It was rejuvenating as well as satisfying to be a part of the helping hand to these desperate communities."

- Mary Townsend

"Working with the Special Operations Response Team (SORT) to help the flood victims made me realize in a time of massive devastation, anything we can do for one another makes a difference. As Pharmacists, our medication knowledge is truly a valuable asset, especially when there is limited medication resources available and the community needs medical assistance. Pharmacists are an integral part of the medical relief team and should continue to participate in future efforts."

- Tara Belden

"It was great to hear the positive reactions when people realized I was a pharmacist. It became apparent that pharmacy's presence during this type of volunteer effort has been largely neglected. Our expertise was fully utilized and appreciated by both the volunteers and the members of the community. The experience left me emotionally drained yet excited to share my stories. Returning to usual daily activities was more difficult than expected and they somehow felt minuscule. My concentration was frequently invaded by thoughts of the homeless victims and all the work yet to be done."

- Michelle Giesler

"The return journey from Tarboro to Durham provided time to reflect on the array of mixed emotions I felt as I left eastern North Carolina and its flood victims. During my stay in Tarboro, I had many opportunities to observe the damages wrought from Hurricane Floyd. I will never forget the complete destruction of entire communities and total loss of all belongings. Despite this awful tragedy, the people's spirits remained optimistic. This volunteer experience allowed me to both grow as an individual and practice my pharmaceutical skills in an area rarely associated with pharmacy, while in fact pharmacy plays a very essential role. As I look back on this experience, I not only think about the role I played as a pharmacist, but also about the impact the flood victims and other volunteers had on me."

- Heather Tangeman

NCPRN Annual Report for 1999

The North Carolina Pharmacist Recovery Network caseload continues to grow. At year's end there were a total of 59 active cases. The total number of cases addressed to date is 91, 19 of which came in 1999. Of the 59 active cases in 1999, 7 cases relapsed, 6 of which were successfully retreated. Of the 7 relapses, 4 were licensed at the time of their relapse, which resulted in a report to the Board of Pharmacy.

Referral sources for the 19 new cases in 1999 were as follows: 10 cases were from colleagues, 4 cases were self referred, 2 cases came from family members, 2 cases came from sources described as "other", and 1 case came from the Board of Pharmacy.

The breakdown of active cases by gender consists of 50 males and 9 females. In the past year 17 new cases were males, and 2 were females. Women have traditionally been more difficult to identify because they have more to lose as a result of society's attitude toward female alcoholics/addicts.

The breakdown by practice site for new cases in 1999 was as follows: 9 from chain retail, 5 from independent retail, 1 from hospital, 1 from long term care, 1 student, and 2 described as other. At present 9 of the 19 currently have their pharmacy license, 3 of which are under a Board of Pharmacy consent order.

During the past year there were 2 deaths reported to the NCPRN. One case consisted of a man who left a treatment facility against medical advice, and committed suicide by drowning. The second case consisted of a man who relapsed it is believed on a Thursday, and was found dead of an overdose of methadone, codeine and alprazolam on the following Sunday.

The executive director was invited to make several presentations during the year because of the reputation that the program has gained. The presentations included: 7 lectures on the "The Neurobiology of Addiction" which were presented at Broughton Hospital, the Wake AHEC, the Greensboro AHEC, ECU School of Medicine, Wake Forest School of Medicine, Campbell and UNC Schools of Pharmacy; 5 lectures on "Identifying and Treating the Impaired Pharmacist" which were presented at the Wake and Greensboro AHECs, UNC and Campbell Schools of Pharmacy, and the ECU School of Medicine; 2 lectures on "The Pharmacology of Addictive Drugs" at the Hugh Chatham Memorial Hospital and Carolina's Medical Center; and 1 lecture on "The Treatment of Addiction in the Primary Care Setting" which was held at the Wake Forest University School of Medicine.

This past year has also seen an increase in the use of the NCPRN office as a preceptor site for both UNC and Campbell Schools of Pharmacy. Each school had 2 students complete the NCPRN substance abuse rotation. NCPRN has also been invited to provide regular one-on-one educational instruction to first and second year residents of the Wake Forest School of Medicine Family Practice Resident Program.

Other activities that occurred during the fiscal year that were directly related to the program included:

- The development of the "PRN Journal" which is written and mailed quarterly to approximately 9000 pharmacist and 800 substance abuse counselors.
- Sponsored the 6th Annual Seminar on Chemical Dependency in the Profession of Pharmacy which had 160 attendees.
- Agendas prepared and staffing for 2 NCPRN Board of Directors meetings.
- Quarterly reports mailed to the Board of Pharmacy members and staff.
- HB-906 "Pharmacist Peer Review" drafted, submitted to the General Assembly, and signed into law.
- Served on the Advisory Committee to the University of Utah School on Alcoholism and Other Drug Dependencies.
- Served on the State of North Carolina's Substance Abuse Strategic Planning Committee.
- Representation on the NC Consortium of Professionals Recovery Programs.
- Facilitated discussion groups at the 2nd meeting of the Citizens Advocacy Center's Forum on the Regulatory Management of Chemically Dependent Health Care Practitioners.

Changes during the year included an increase in client fees from $50/month to $75/month if practicing. No change was made to the $25/month out of practice fee. We also changed urine screen companies from Labcorp to Quest. This new screen will provide for greater sensitivity, and add about 15 new drugs to the screen. We closed out the year by interviewing for, and hiring a new administrative assistant, Ms. Keller Parker.

Plans for the year 2000 include increasing the publicity for the program. As noted in the statistics above, we need to do more to get the word out to hospital pharmacists as well as female pharmacists in all settings that help is available. The executive director hopes to visit with the directors of a number of hospital pharmacies this year. With the help of new administrative staff, there are a number of other projects in development.

The executive director wishes to once again express his thanks to the members and staff of the North Carolina Board of Pharmacy, the members of the NCPRN Board of Directors, the North Carolina Association of Pharmacists, Campbell University School of Pharmacy, UNC School of Pharmacy, and the many pharmacist volunteers for their cooperation without which the NCPRN program would not be possible.

Respectfully submitted,
Dave Marley, RPh.
Executive Director

A Look At Consultant Pharmacists

by Lori Edwards

Most people have had the difficult experience of having a family member or friend placed in the long-term care environment. Long-term care includes nursing homes, rehabilitation centers and assisted living facilities/rest homes. Admission to a long-term care facility may be short or long-term depending on the admitting diagnosis. Often times the admission follows an acute episode such as a hip fracture or stroke resulting in an inability for the individual to care for themselves at home.

Soon after a patient arrives at the long-term care facility a consultant pharmacist reviews the patient's medical chart. Following the initial assessment, the pharmacist reviews the patient's chart once every 30 days. This monthly chart review, otherwise know as the Drug Regimen Review (DRR), is mandated by the Omnibus Reconciliation Act. These reviews include an initial assessment of the patient's history and findings, assessment of current status, medication review, recommendations and monitoring of drug therapy. Subsequent reviews document and update the patient's status as well as provide follow-up on issues brought to the attention of the attending physician and nursing staff the prior month. Federal and state regulations require that physicians and nursing staff act upon the pharmacist's recommendations.

Aside from being knowledgable about chronic disease states such as diabetes, congestive heart failure, hypertension, chronic obstructive pulmonary disease and other conditions for which drug therapy is required, the consultant pharmacist must also understand and interpret federal and state regulations governing the long-term care facility. For example, in July 1999 several changes were made to the federal regulations to include areas of review, which have the *potential* to cause drug misadventures. This places the pharmacist in a very proactive role as advisor to the medical staff regarding potential adverse drug events that may occur if certain therapies are continued concomitantly with certain disease states. An example would be that a person who has a history of GI bleeds or gastritis probably should not receive chronic NSAID therapy. There may be cases, however, where the benefit outweighs the risk and collaboration between healthcare professionals is necessary to achieve the best patient outcome. In those cases there must be evidence in the chart to support and show that the physician or the pharmacist has considered this, and that monitoring for an adverse event will continue.

Additional areas of scrutiny by the consultant pharmacist include medications that are considered inappropriate for the geriatric patient. This criteria, now included in the new regulations, was based on an article written by Mark H. Beers, MD, a geriatrician who found that when certain medications were used in the geriatric patient the benefits did not outweigh the risks and that in few cases these medications were not in the best interest of the elderly patient. An example of an inappropriate medication would be amitriptyline (Elavil) when used to treat depression. This medication is highly anticholinergic and the risk of side effects is greater in the older population than the benefits that could be realized. There are several other medications mentioned in the new regulations as inappropriate for the geriatric patient.

A consultant pharmacist must also ensure that all medication use is supported by a diagnosis. When a diagnosis can not be located, the physician must be contacted to identify the diagnosis or discontinue the medication. Using a medication without a diagnosis would be considered an inappropriate and unnecessary drug. With many patients in long-term care receiving multiple drug therapies, opportunities for consolidation and discontinuation are in the best interest of the patient. As the number of medications a patient receives rises, so does the incident of adverse drug reactions.

Additional responsibilities of a consultant pharmacist include quarterly reports to the facility and medical director regarding pharmacy issues and concerns. These reports scrutinize nursing practices as they relate to a patient's pharmacotherapy. This would include medication administration, controlled drug documentation, stop order policies, medication storage and policy and procedure issues. The quarterly reports also review psychoactive medication use such as anxiolytics, antidepressants, sedatives and psychotropics. These meetings also serve as an opportunity to cultivate a rapport with the healthcare team.

Consultant pharmacists are required to provide regular educational opportunities to the nursing staff as well as be a resource to the medical and administrative staff at the facility. Often times the consultant works as a liaison between the dispensing pharmacy and the facility assuring good communication and understanding of pharmacy policies, procedures, and standards of practice.

A consultant pharmacist may also gain certification by taking a Geriatric Certification Exam to become a Certified Geriatric Pharmacist (CGP). This exam is administered by the national organization, American Society of Consultant Pharmacists (ASCP). Active members of ASCP may earn the designation of Fellow (FASCP) when a set of criteria has been met that includes academic initiative, continuing education, organizational leadership and civic activities. One can visit the Society's web site at ASCP.com for more information.

In summary, a consultant pharmacist's priority is to maximize drug therapy, with a minimal amount of medication to provide the best outcome for the patient. The goal is to improve or maintain a patient's quality of life as well as contain costs. Using the least expensive drugs in some cases may not be the best choice in the elderly, if side effects or adverse drug event potential is greater than with newer therapies. Consultant pharmacists are patient advocates in the long-term care environment. Their communications with other health care practitioners helps ensure appropriate medication use and makes them an integral part of the long-term care environment. ❖

About the Author...
Lori Edwards, PharmD, FASCP, is a Clinical Consultant Pharmacist with Vencare Pharmacy Services. Contact her via e-mail at lerph@aol.com

Medical Board member Hector Henry II, M.D., NCAP Executive Director Dan Garrett, BOP President Bob Crocker, Medical Board member John T. Dees, M.D.

BOP Attorney Denise Stanford, BOP member Al Lockamy, Medical Board member Stephen Herring, M.D., BOP member Jack Watts.

Historic Meeting Unites Medical and Pharmacy Boards

We have entered a new era of collaboration between pharmacy and medicine in North Carolina. On November 19, 1999 an historic meeting took place between the subcommittee of the North Carolina Medical Board and the North Carolina Board of Pharmacy. The group met to develop regulations for the Clinical Pharmacist Practitioner Act. The target date for implementing these regulations is July 2000. For more information contact Dan Garrett at NCAP.

ASHP Supports Medical Error Reporting System

The American Society of Health-System Pharmacists (ASHP) has proposed a comprehensive, national approach to reducing medication and other medical errors. The Society, which represents 30,000 pharmacists who practice in hospitals and other components of health systems, is advocating the establishment of a national medical error reporting system and the strengthening of voluntary reporting systems.

"We need to move beyond the culture of blame that has traditionally surrounded the issue of medical error and begin to establish standardized reporting systems that take a 'lessons-learned' approach to the problem," said ASHP President Bruce E. Scott, M.S., FASHP. "The ideal system would allow sunshine into the processes that create error so that we can change those processes and protect patients."

In response to the Senate Committee on Health, Education, Labor, and Pensions hearing, ASHP stated that a mandatory reporting system should only be applied when patients are seriously harmed or die as a result of error.

"This system should focus on three primary goals: accountability, quality improvement, and enhancement of patient safety," noted Scott. The Society's recommendations are in direct response to the Institute of Medicine's recent report on medical error, "To Err is Human: Building a Safer Health System," which highlighted the important role of pharmacists in preventing medication errors, especially through their work on patient-care teams. ASHP supports a mandatory medical error reporting system at the state level with strong federal coordination, analysis, and oversight. This system would:

- Focus on improving health care processes.
- Provide confidentiality to patients, health care workers, and institutions as long as the confidentiality doesn't compromise public accountability, and
- Eliminate penalties for either the reporting of or involvement in a medical error that causes serious harm or death.

Further, the Society recommends the adoption of a definition of "serious harm" that focuses on incidents of long-term or irreversible patient harm. It also advocates that a mandatory system include national coordination and standardization of reporting methods and analysis, adequate resources for report analysis and quality improvement, and periodic assessment to ensure the system is working and not creating undesirable consequences.

ASHP also weighed in today on the importance of maintaining and improving current voluntary reporting systems. The Society noted that the current Medication Errors Reporting Program operated by the U.S. Pharmacopeia in cooperation with the FDA's MedWatch program and the Institute for Safe Medication Practices could serve as a model for voluntary reporting of other types of medical error.

"By developing a mandatory system that assesses error and by incorporating the information we learn from voluntary systems on 'near misses,' we can design a system that is truly fail-safe," said Henri R. Manasse, Jr., Ph.D., Sc.D., ASHP executive vice president and CEO. Manasse also serves as chairman of the National Patient Safety Foundation.

For a full copy of the "ASHP Statement on Reporting Medical Errors" and related resources such as the "ASHP Guidelines on Preventing Medication Errors in Hospitals," see the Society's Web site at <http://www.ashp.org>.❖

FDA Commissioner Underscores Pharmacists' Role

Recognizing "that there are many areas of mutual concern to our organizations," Dr. Jane Henney, Commissioner of Food and Drugs, talked about several prominent issues that face her agency and our members during her Opening General Session speech at ASHP's Midyear Clinical Meeting in Orlando last month.

Discussing the IOM's report on medical errors, Dr. Henney clarified the FDA's role in determining the balance between drug risks and benefits during the drug approval process. It is also necessary, she noted, "to look at whether risks are managed throughout the health care delivery system." As pharmacists, she said that ASHP's members "must ensure that patients receive the correct medication, and, at the same time, receive the correct information about how to take a product, and what the potential risks of doing so may be."

Dr. Henney said that the FDA is very concerned about the "public health implications of Internet drug sales," and her agency believes "that it is important to have a Federal presence, where we will be able to send the message that there is no safe haven for illegal activity involving the sale of prescription drugs on the Internet." Health care practitioners can assist the agency "by educating their patients about dangerous practices on the Internet and encouraging their state law enforcement and regulatory officials to take action." She thanked ASHP for the Society's assistance in formulating the "Principles of Understanding" on Internet prescription drug sales that were agreed upon by the FDA, the National Association of Boards of Pharmacy, and the Federation of State Medical Boards. Dr. Henney recognized that there were divergent opinions regarding Direct-to-Consumer (DTC) advertising of prescription drugs. She stated that "the most important message that we at FDA have tried to stress regarding DTC advertising is that a manufacturer must give the whole picture" about drug risks as well as benefits. Health care practitioners, as well as the FDA, are trying to gather appropriate data to determine the effects of this kind of advertising on all participants in the health care system.

Finally, Dr. Henney noted that "through our continued communication in settings like this meeting, we will help to ensure that we are not just individually working to protect patients and consumers, but that we are working together toward a common goal." ❖

Calendar

March 10-11: Carolina Regional Conference for Consultant Pharmacists, Charlotte

March 10-14: APhA Meeting, Washington, DC

March 16: NCAP Board of Directors Meeting, Chapel Hill

March 16: NCAP Leadership Conference, Chapel Hill

March 23: NCAP Meeting with Local Association Leaders, Goldsboro

March 30: NCAP Meeting with Local Association Leaders, Statesville

April 20: NCAP Board of Directors Meeting, Chapel Hill

September 7-10: Annual Convention/Pharmacy Practice Seminar, Wilmington

October 10-12: Annual Carolina Seminar, Greensboro

Please visit our website at www.ncpharmacists.org for more information on upcoming meetings and events.

NCAP Membership Benefits Employees

Companies from across the state are discovering how everyone benefits when their employees become members of NCAP. By writing just one check, employers can cover the cost of membership for their employees and, in return, reap the rewards that an active and informed staff has to offer.

"We want our employees to take an active role in the profession and this is one way to encourage that," said Ernest Keich, Director of Pharmacy at Rowan Regional Medical Center in Salisbury. "It's a benefit that the employees appreciate."

Halifax Regional Medical Center in Roanoke Rapids has been covering the cost of NCAP memberships for their employees for over fifteen years. Chris Lehman, Director of Pharmacy at Halifax, said "We realize the importance of NCAP to the pharmacists in our state. This is just one way that we support our organization."

The following is a partial list of businesses that are supporting NCAP membership as an employee benefit:

- Campbell School of Pharmacy
- Neil Medical Group
- Eckerd Drug
- Lexington Memorial Hospital
- Goldsboro Drug Co.
- Gate City Pharmacy
- Medical Pharmacy
- Crossmore Drug
- Cleveland Memorial Hospital
- Central Pharmacy
- Rowan Regional Hospital
- Glaxo Wellcome
- UNC School of Pharmacy
- Bennett's Pharmacy
- McLarty Drug Co.
- East Carolina University
- Marion Pharmacy
- Mercy Hospital

We'd like to add your name to this list. For more information on how you can help your employees excel in their profession, contact the NCAP office.

Small Doses

Medicinal Herbs: An international scientific conference on "The Efficacy and Safety of Medicinal Herbs" will be hosted by the University of North Carolina at Chapel Hill March 2-3, 2000. The conference is sponsored by the UNC Institute of Nutrition, the UNC School of Medicine, the Sarah W. Stedman Center for Nutritional Studies at Duke University Medical Center, and the National Institute of Environmental Health Sciences' National Toxicology Program. For registration information call 919.966.4032.

The Commission for Certification in Geriatric Pharmacy (CCGP) has announced that Gwendolyn Eungard of Fayetteville, NC has been accredited as a Certified Geriatric Pharmacist (CGP). Fifty-six pharmacists from a wide variety of practice environments sat for the exam, of whom 49 candidates earned a passing score. The exam is designed to assess candidates' knowledge and skills in all aspects of providing high quality pharmaceutical care to elderly patients.

Tina Penick Brock of Chapel Hill, NC has been named the 2000 recipient of the Pharmacy Leadership & Education Institute's Albert B Prescott/Glaxo Wellcome Leadership Award. Tina has been of the cutting edge of pharmaceutical care practice in several arenas including practice, organizations, and education. She is the Director of Student Services for the University of North Carolina School of Pharmacy, and also serves as advisor to the APhA Academy of Students of Pharmacy chapter at UNC. The award will be presented March 12 during the APhA 2000, the annual meeting of the American Pharmaceutical Association in Washington, DC.

Bruce R. Canaday of Wilmington, NC, has been selected as the recipient of the APhA Academy of Pharmacy Practice and Management Distinguished Achievement Award in Clinical/ Pharmacotherapeutic Practice. Bruce is the Director of the Department of Pharmacotherapy at the Coastal Area Health Education Center in Wilmington. He was selected in recognition of his contributions to clinical/pharmacotherapeutic practice, which include leadership roles in pharmacy organizations and his numerous publications in pharmacy journals. The award will be presented at the APhA Annual Meeting and Exposition March 10-14, in Washington, DC.

Dale B. Christensen has been selected as the recipient of the APhA Research Achievement Award in the Pharmaceutical Sciences for the Year 2000. Dale is a Professor and Chairman of the Division of Pharmaceutical Policy and Evaluative Sciences at the University of North Carolina School of Pharmacy in Chapel Hill. His research contributions have been characterized by a dual commitment to quality and relevance, and his papers have appeared in highly regarded, interdisciplinary journals as well as the discipline-specific journals in pharmacy. The award will be presented at the APhA Annual Meeting and Exposition March 10-14, in Washington, DC.

Richard J. Kowalsky has been selected as the recipient of the APhA Academy of Pharmacy Practice and Management William H. Briner Distinguished Achievement Award in Nuclear Pharmacy Practice. Richard is an Associate Professor of Pharmacy at the University of North Carolina in Chapel Hill. He has been a distinguished educator, innovator, achiever and mentor in advancing the profession of pharmacy. He has been published in various scientific journals. His textbook, *Radiopharmaceuticals in Nuclear Medicine*, is considered a classic reference in the field. The award will be presented at the APhA Annual Meeting and Exposition March 10-14, in Washington, DC.

Scott R. Smith has been selected to receive the APhA Best Published Paper Award for Economic, Social and Administrative Sciences for the year 2000. Scott is the Senior Author of "Access and Use of Medications in HIV Disease," which appeared in the April 1999 issue of *Health Services Research*. He is an assistant professor in the Division of Pharmaceutical Policy and Evaluative Sciences at the University of North Carolina Chapel Hill, School of Pharmacy. The award will be presented at the APhA Annual Meeting and Exposition March 10-14, in Washington, DC.

If you have a "Small Dose" to contribute to our journal please send your information to: North Carolina Pharmacist, 109 Church Street, Chapel Hill, North Carolina 27516, e-mail: sally@ncpharmacists.org

Classifieds

EMPLOYMENT

Clinical Pharmacist: Vacancy Number: 01012 , RANGE: $53,191 - $66,346 . John Umstead Hospital is a 600 bed state psychiatric hospital located in Butner, NC seeking skilled Clinical Pharmacist to perform clinical and dispensing pharmacy duties. Consultation in the areas of drug information, pharmacokinetics, polypharmacy and drug therapy. Position is primarily distributive with the potential to develop into a more clinical role. Reports to pharmacy manager and with a team of 15 members currently works with 6 other professional pharmacists. Pays competitive salary and the full range of state benefits. Work hours are flexible. Requires accurate oral and written communication skills. Management prefers PharmD degree with psychiatric residency. Requires graduation from a recognized school of pharmacy and one year of experience as a licensed pharmacist, preferably in a hospital or clinical setting. Necessary special qualification - a current license to practice as a registered pharmacist in North Carolina by the North Carolina Board of Pharmacy. Open until filled. EEO/AA employer . Contact: Recruiter, 1003 12th St., Butner, NC 27509 Phone: 919.575.7943 fax: 919.575.7550 e-mail: debbie.crumpton@ncmail.net Also recruiting a Certified Pharmacy Technician!!!! #01213

Pharmacist Wanted: Individual will be responsible for Provision of Pharmacy Care to include both Distributive and Clinical Services. Duties include target drug therapy monitoring, anticoagulation, pharmacokinetic services and drug therapy management under Collaborative Protocols. Qualified candidates may be placed on Clinical Pharmacist Track. Requirements include B.S. Pharmacy or PharmD with institution experience; Pharmacy Practice Residency preferred. Salary range from $65,500 to $73,275 with excellent benefits, including major medical insurance, dental insurance, paid time-off, pension plan, Credit Union, SRMC fitness center and much more. Qualified candidates should send or fax resume to: Durham White, Assistant HR Director, Southeastern Regional Medical Center, P.O. Box 1408 Lumberton, NC 28359. Fax: 910.671.1757, or e-mail: white01@srmc.org Web Site: www.srmc.org. An Equal Opportunity Employer.

Pharmacist Needed: Independent retail pharmacy in Eastern NC. Competitive salary/benefits. 919.735.3011.

The Moses Cone Health System has a full-time clinical pharmacist position available. Moses Cone is a 547-bed community teaching hospital located in Greensboro, NC. As a quality health care provider in our community, focus is on designing our emerging health system to meet the medical and pharmaceutical needs of our patients. MCHS pharmacists are involved in patient care. Through our drug management services, pharmacists have prescriptive privileges in the areas of anticoagulation, antibiotics, nutrition support, and other areas. Primary aspects of the position include being a clinician, preceptor for residents and students, decision-maker on path, and supervisor for the distribution system. Benefits include working every 5th weekend, 25 days of paid annual leave, medical and dental coverage, an on-site day care center, and tax-deferred annuities. Greensboro is centrally located between the beaches and mountains. Candidates with clinical training and experience in the acute care setting are encouraged to apply. For more information, please call Donna Harris, Corporate Recruitment at 336.832.7089 or 1.800.476.6737 or e-mail at donna.harris@mosesconc.com. Come join our crazy team! EOE

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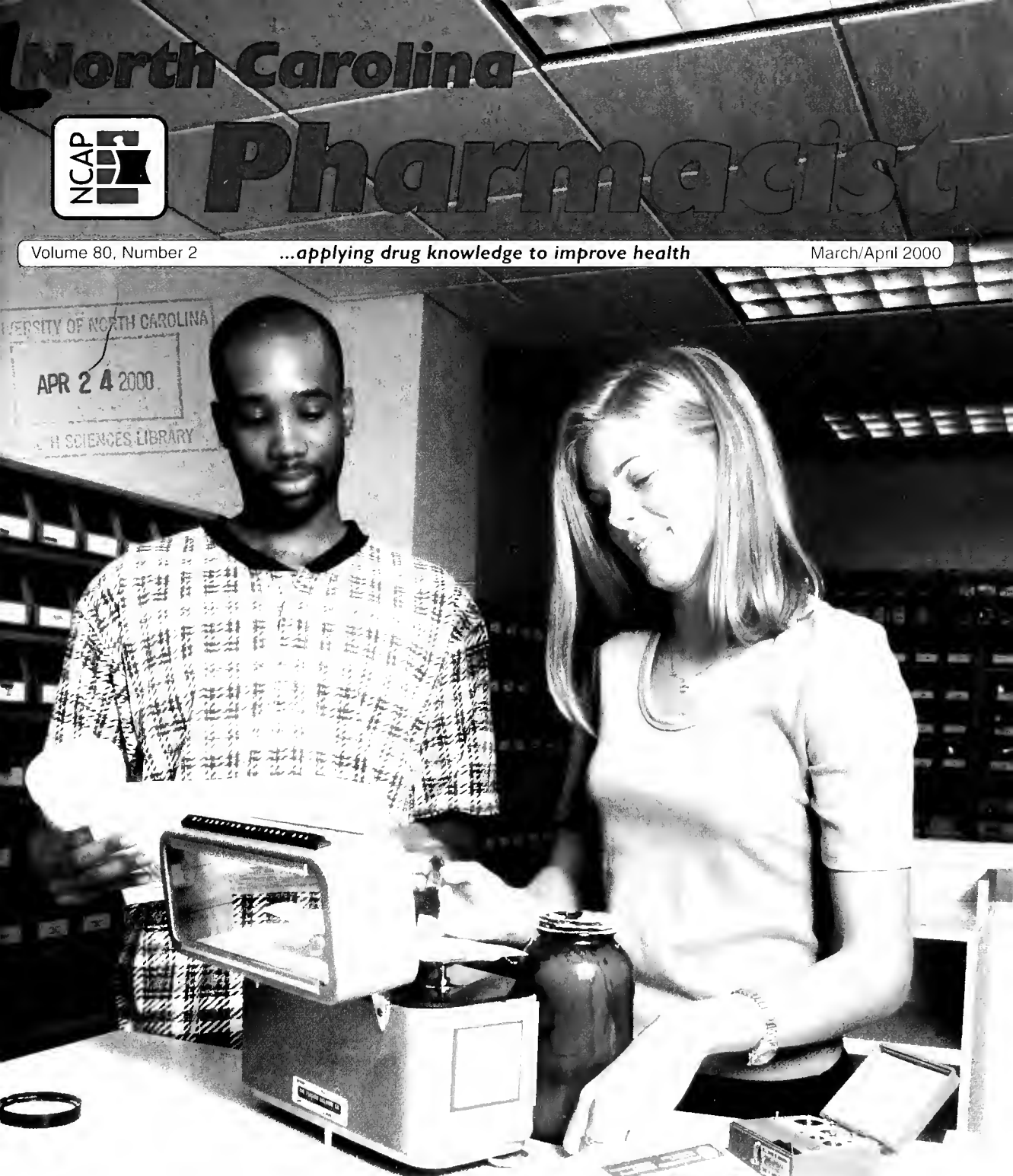
Merchandise from closed pharmacy, fixtures, supplies, Rx drugs, otc drugs, contact Healthcon Services, Inc., Box 2, Southern Pines, NC 28388 or tel. 910.692.8800.

Closing date for classified advertising is the 15th of the month preceding publication. NCAP members receive one free classified ad per year. Additional ads for members are 15¢ per word. The non-member rate is 75¢ per word with a $25 minimum. Send ads and billing information via fax to 919.968.9430 or e-mail to sally@ncpharmacists.org

North Carolina Pharmacist

Volume 80, Number 2 ...applying drug knowledge to improve health March/April 2000



The Changing Role of Pharmacy Technicians

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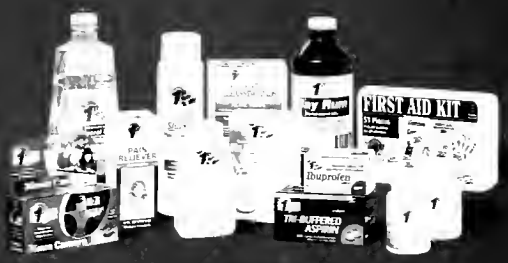

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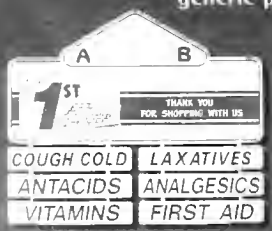

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North Carolina Pharmacist

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Inside

On the Cover: Pharmacy Technology Program students Amy Bailey and Jeff Adams at Durham Technical Community College.

Cover photo by Jim Roberts, Durham Technical Community College.

Voice & Vision

Daniel G. Garrett
Executive Director

Trained Techs Will Help Pharmacists Meet Patient Medication Needs

The following article, written by Dan Garrett, appeared in the February 27, 2000 issue of the Greensboro News & Record. *It is a response to some of the questions currently being asked by the media concerning the role of Pharmacy Technicians.*

The number of prescriptions to be filled by the nation's pharmacies are increasing rapidly. Last year 2.8 billion prescriptions were filled and this is estimated to increase to 4 billion in 2004 (a 40% increase). The number of pharmacists is projected to remain the same, and currently there are 6,000 vacant pharmacist positions nationwide. Pharmacists face the challenge of providing drug information and patient counseling in addition to meeting the increased demand for medication therapy. Patients receive the greatest benefit when the pharmacist spends their time reviewing medication therapy for allergies, interactions, proper dosage and talking to patients. Pharmacists prevent medication errors and improve patient adherence with therapy when they have the time to do what they are trained for. A recent study by Arthur Anderson showed that 69% of the pharmacists' time is spent performing tasks that someone else could do. Twenty percent of their time is spent on third-party and insurance reimbursement.

Pharmacy Technicians assist pharmacists in the dispensing process performing many of the manual and paperwork tasks. Trained technicians are now using automated dispensing systems in high volume environments. In all cases the pharmacist is responsible for the final check of the filled prescription and counseling of the patient.

In North Carolina there is currently a Board of Pharmacy Regulation requiring no more than a 2:1 ratio of technicians to pharmacists. This is similar to most other states. Several years ago a bill was proposed to the legislature to register pharmacy technicians with the Board of Pharmacy. The intent of this bill was to identify who technicians were and allow the Board to track individuals working as technicians. The bill did not pass due to lack of stated qualifications to be required of pharmacy technicians.

The North Carolina Association of Pharmacists (NCAP) was formed on January 1, 2000 as a merger of the four pharmacy organizations representing pharmacy in North Carolina (North Carolina Pharmaceutical Association, North Carolina Society of Health-System Pharmacists, North Carolina Chapter of the American Society of Consultant Pharmacists and the North Carolina Retail Pharmacy Association). On February 5, 2000 NCAP leaders met with the Board of Pharmacy at Grandover Resort in Greensboro to address pharmacy workplace issues (*see Workplace Issues story on page 10*). Working pharmacists and technicians participated in the conference. Major issues discussed were the increasing prescription volume, prevention of medication errors and the proper use of pharmacy technicians and automation for the best interest of the patient. One of the top priorities from this meeting is the need to register and certify trained pharmacy technicians. There are plans to develop legislation to address this for the long session in 2001.

The North Carolina Board of Pharmacy was the first in the country to require reporting of deaths from medication errors. The Board has a proven track record of following up on patient complaints and working to correct unsafe pharmacy practice. NCAP sponsored a program on Current Issues in Medication Safety at its Annual Winter Meeting in Greensboro on February 25, 2000.

There are currently 1,103 pharmacy technicians in North Carolina who are certified nationally by the Pharmacy Technician Certification Board (www.ptcb.org). NCAP has formed a Pharmacy Technician Practice Forum to promote training and education of pharmacy technicians. An NCAP continuing education program for technicians was presented by the Greensboro Area Health Education Program on Thursday, February 24, 2000.

North Carolina pharmacists have a national reputation for being proactive to develop innovative systems to promote safe use of medications. Public awareness and support of the proper use of trained pharmacy technicians will help pharmacists meet patient medication needs. ❖

Dan Garrett can be reached at dan@ncpharmacists.org or 800.852.7343.

Call for Nominations

This summer NCAP will elect a 2001 President-elect (to serve as president in 2002), a Treasurer to serve a two-year term (2001-2002), and two at large board members. Members may submit nominations or request to be considered for these positions by writing to the NCAP Nominating Committee, 109 Church Street, Chapel Hill, NC 27516. Information may also be faxed to 919.968.9430. All nominations should include biographical information and must be received by May 31, 2000. NCAP Nominating Committee: Margaret Sgritta, Chair, Randy Ball, Vance Collins, Mike List, Jane Younts.

North Carolina Association of Pharmacists
109 Church Street
Chapel Hill, NC 27516
phone (919) 967-2237
fax (919) 968-9430

Kevin L. Almond
NCAP President

Fellow pharmacists:

Lately the newspapers have been filled with stories about pharmacy, particularly concerning error rates, busy stores, deaths from errors and the like. The first quarter of every year is considered a slow news time and some stories may be sensationalized to increase readership by the general public. This is to be expected, and as my grandmother would say, "at least when they're talkin' about you, they're leavin' someone else alone." It seems like this is our turn in line.

Just because it's our turn in the media spotlight does not mean that the coverage cannot or should not reflect our perspectives. Toward this end, our Association has attempted to offer more positive news placements in the media outlets in our state. In addition, we have helped to craft letters that our practitioners can revise to reflect their personal writing style and submit as letters-to-the-editors. This information helps balance the negative attacks and educates the public about pharmacy and the value we add to patient health.

Sure, we have to admit that there are problems, such as the shortage of pharmacists, long work hours, increased attention to third-party payers, and human errors, but we can also talk about the lead we take in monitoring ourselves through our elected Board of Pharmacy and improving the profession through our Association. NCAP is taking great strides in medication error prevention and improving health care in our communities. No one in our profession is complacent about mistakes or their sometimes fatal consequences, and errors are not the whole story or even a significant part of the story of the profession. The truth is that many of the good things that pharmacists are effecting on a daily basis are not publicized. In fact, we tend not to promote ourselves because improving health care is our vocation.

Improving adherence, monitoring lipids, controlling blood sugar and blood pressure, and managing asthma, are not sexy topics. No one, except Johnny's family and his physician, seems to care that little Johnny has not been to the E.R. with an asthma attack due to good disease state management. Be that as it may, we as a profession need to do a better job of reporting the mundane; a better job of educating the public; a better job of documenting interventions; a better job of blowing our own horn. It's not our way, but maybe it needs to be, because if we don't do it, no one else will. The public is not reading *Drug Topics* or *American Druggist* or *JAMA*, they're reading the *Chronicle*, the *Herald*, the *Times*, etc. Their source of information may not be entirely accurate, but it is their source. We have to correct inaccuracies and imbalances, and in this effort your Association is here to help you.

In return, you can help the Association and your profession at the local level. Write letters, speak to civic groups, and build relationships with the health care professionals in your community. Know your legislators and inform them about pharmacy before special interest groups paint an incorrect picture. Help us by contributing to our RPh PAC so that we can help elect candidates to office who are friends of pharmacy.

Be active in your community and with your association—the profession will be better for it.

Sincerely,
Kevin Lee Almond, RPh
NCAP President

...applying drug knowledge to improve health

Pharmacy Technology Program Trains Students for High-Demand Field

"We have a critical demand for pharmacy technicians in the Triangle area," said Joe Anne Griffith, Pharmacy Technology instructor and clinical coordinator at Durham Technical Community College. "The shortage of trained pharmacy technicians makes this career field well worth considering by those interested in improving quality of life through a health career."

Trained pharmacy technicians are in high demand in the state and nation, and Durham Technical Community College's program is one of seven in North Carolina's community college system offering this training. In addition, Durham Tech's program is one of only two in the state accredited by the American Society of Health-System Pharmacists. Other schools offering technician training include Blue Ridge Community College, Caldwell Community College and Technical Institute, Cape Fear Community College, Davidson County Community College, Fayetteville Technical Community College, Nash Community College and Southeastern Community College.

At Durham Tech, Pharmacy Technology students receive training in medication dispensing procedures. Additional study includes pharmacology, pharmaceutical math, microcomputers, and pathophysiology. Students also practice procedural skills in a simulated pharmacy technology laboratory located in the new Durham Tech/GlaxoWellcome Technology Center, which houses most of the college's health programs as well as its computer programming and networking programs.

"In today's healthcare settings, pharmacy technicians are a critical part of the team. They enable pharmacists to use their time and expertise in giving patients the best pharmaceutical care. Well trained pharmacy technicians with the solid education needed to give quality service to their employers complement and support the profession," said Griffith.

Students in Durham Tech's Pharmacy Technology program also benefit from the Triangle area's wealth of medical facilities - for both job demand and career training. Their clinical practice takes place at Duke University Health Systems, Durham Regional Hospital, Veterans Affairs Medical Center, University of North Carolina Hospitals, Rex Healthcare, Person Memorial Hospital, Lincoln Community Health Center, Hillcrest Convalescent Center, and N.C. Central University Student Health Services.

Student Cheryl Riggs at Durham Technical Community College.

"Increasing demands on pharmacists for greater involvement in direct patient care require technicians to be prepared for more responsible roles in prescription processing," said Carolyn Robbins, chief of Pharmacy Services at Lincoln Community Health Center. "Durham Tech's Pharmacy Technology program provides local hospitals and pharmacy practices a pool of well-trained technicians during a time of national shortage."

Durham Tech added the Pharmacy Technology program to its array of health training offerings in 1975 based on area job market demand. As area hospitals expanded their pharmacy services to meet the increasing need for higher quality patient care and to conform to governmental regulations, the demand for pharmacy technicians grew. In addition, the increasing population in the Triangle has caused a continuing increase in pharmacy services through retail facilities and other health care providers such as nursing homes.

Expanding needs have created a greater demand for technical support personnel to carry out routine functions in dispensing drugs. Through enrollment in Durham Tech's program, Pharmacy Technology graduates are prepared to meet these needs.

"Formally trained technicians have a knowledge of drugs, laws, and regulations," said Robbins. "They also possess skills in utilizing computers and automated dispensing systems. These technicians require less on-the-job training and have a greater commitment to pharmacy technology as a career."

Job opportunities for program graduates are excellent. In addition to employment in hospitals, graduates are employed by retail drug stores, nursing homes, drug manufacturers, research laboratories, wholesale drug companies, and home health care agencies.

"Those involved in preparing

pharmacy technicians for this high-demand field are concerned that starting salaries for pharmacy technicians may be contributing to the lack of interest in the pharmacy technician career field," said Griffith. "Unless healthcare administrators in service settings work to increase salaries, the shortage in pharmacy technicians is expected to continue."

The college's Pharmacy Technology program includes three semesters of study with classes offered during the day. A student may enroll in the program any semester. Durham Technical Community College is accredited for pharmacy technician training by the American Society of Health-System Pharmacists. Graduates of Durham Tech receive a diploma.❖

Joe Anne Griffith is a Pharmacy Technology Instructor/Clinical Coordinator at Durham Technical Community College. She can be reached at 919.686.3686.

Clinical Students Ginger Ducharme and Cheryl Riggs at Durham Technical Community College.

Enhancing Community Pharmacy Practice: The Role of the Pharmacy Technician

by Shannon McDevitt & Rebecca W. Chater

As February marked the annual television network ratings wars, we were once again inundated with "danger-in-the-drugstore" hype. Although many of these stories were highly sensationalized, their root cause is a legitimate one. Society is demanding that someone assume the role of protecting the public health—monitoring drug therapy and solving drug-related problems to eliminate preventable drug-related adverse events and optimize outcomes.

Who will step up to the plate?

You may have heard it said that change is the only constant in community pharmacy. That statement has never been more accurate than it is today. Pharmacists are faced with exploding prescription volumes in the midst of an eroding workforce. Retail prescription volume reached 3 billion in 1999 and is projected to exceed a staggering 4 billion by 2005. Nationally, the pharmacist shortage approached 4,000 in 1998 and continues to grow.[1] In addition, profitability continues to decline due to the dominance of third-party payers and managed care. Poor workflow of pharmacy layouts that have long outgrown their intended capacity and bottlenecks created by barrier-building insurers are the order of the day. All of these factors have contributed to a community pharmacy environment that is, at a minimum, less than optimally efficient, and worst case, highly chaotic and potentially dangerous to the public health. With all of the difficulties present in community pharmacy practice today, it seems clear that the "plate" of the community pharmacist is full.

A fundamental concept, too often overlooked, is that in order for one to step up to the plate, he must first be able to see it.

Some clearing must occur. Solid hiring practices and appropriate training may position the pharmacy technician as integral to this process. Pharmacy technicians, with proper knowledge and skills, add tremendous value to the pharmacy workplace. According to the American Pharmaceutical Association, the standard dispensing process involves 14 steps (outlined in Figure 1).[2] Of these steps, only *three*—warning assessment, final verification and patient counseling—require activity on the part of the pharmacist. In the typical community

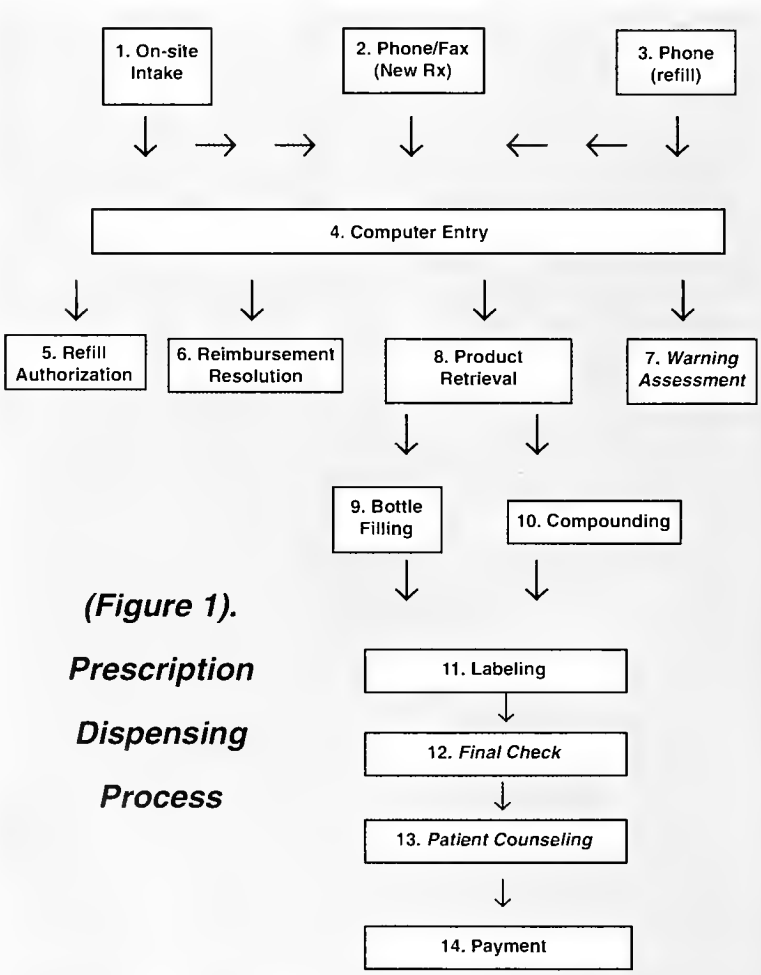
Continued on page 8

Continued from page 7

setting, however, the pharmacist is still positioned as captain of the keyboard, inputting prescriptions. In addition, pharmacists perform other quazi-clerical functions such as handling insurance problems and answering the telephone. Meanwhile, real opportunities for improving patient quality of life—answering questions, monitoring drug therapy, helping patients manage disease—are passed up. How many of these opportunities might the pharmacist capture if he or she performed only the requisite functions illustrated in Figure 1? By performing the other eleven steps of the dispensing process, pharmacy technicians will have tremendous impact in helping to clear the pharmacists' plate. It is then, and only then, that the pharmacist can step up to the plate and take care of patients.

Proper training is absolutely essential for the technician to actually be an enabler in the provision of pharmaceutical care. Certification programs are one way in which technicians can become qualified to assume more responsibility. The Pharmacy Technician Certification Board (PTCB), co-founded by the APhA, ASHP, and two state associations, has certified over 54,000 pharmacy technicians to date. According to PTCB Executive Director, Melissa Murer, RPh, a record number of over 9,500 candidates are registered to take the exam this month. Currently, community pharmacies have the highest rate of non-certified technicians, ranging from 60-64% compared to 30% in hospitals.[3] Higher salaries are another consideration, given that experienced technicians often find the pay to be higher in hospitals. As one pharmacist put it, " Trained and well-paid, they have a future; just 'off the street', [they're] nothing more than an extra duty cashier."[3] Step aside, "extra duty cashiers"—make room for a new breed of pharmacy technician to clear the plate for our nation's pharmacists. Pharmacists, the plate is in view.

Batter up. ❖



(Figure 1). Prescription Dispensing Process

About the Authors...

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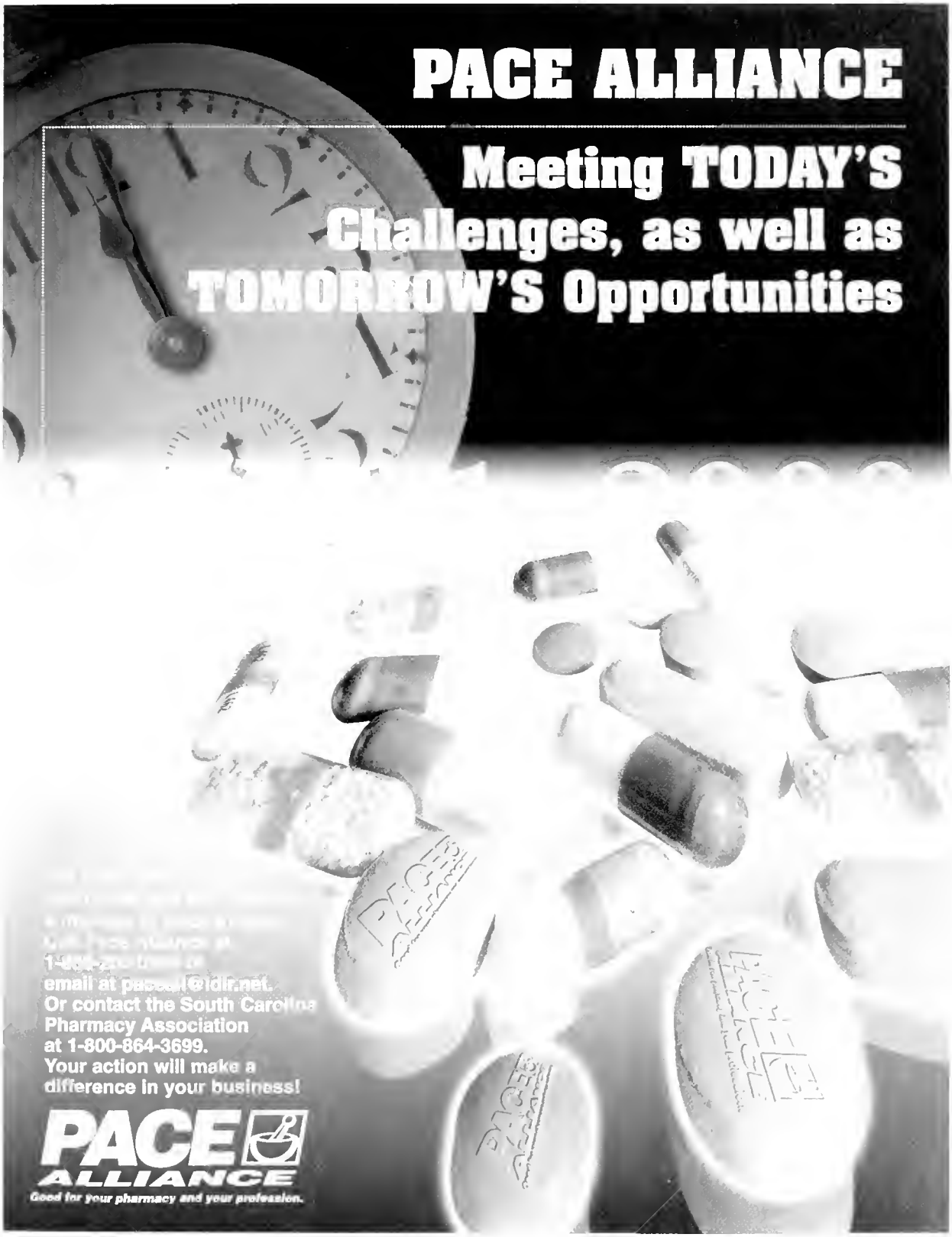
References:

1. Beavers N. Feeling the weight. *Drug Topics*. 2000; 144(1): 38-48.
2. American Pharmaceutical Association. "Positioning your practice for pharmaceutical care: An individualized blueprint for change" Certificate Program.
3. Conlan MF. Tech's time. *Drug Topics*. 1999; 143(22): 52-60.

Organizational Meeting for Tech Practice Forum

If you are interested in the future of pharmacy technicians, you are encouraged to attend the organizational meeting of the NCAP Technician Practice Forum which will be held Monday May 8, 2000. The meeting will be at Holy Trinity Episcopal Church in Greensboro, NC and will include dinner and CE. Registration will begin at 6:00 p.m. and the meeting will begin at 6:30 p.m. If you preregister, the cost will be $5 for NCAP members and non-members. If you register at the door, the cost will be $10 for NCAP members and and $15 for non-members. More information will be mailed soon. You can call NCAP at 919.967.2237 to ensure your name is on the mailing list.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NCAP Workplace Issues Task Force Report

TASK FORCE MEMBERS

Regina Schomberg, PharmD, Co-Chair, Wake Forest University Baptist Medical Center
Gray Stewart, RPh, Co-Chair, Kerr Drug
Brian Gallagher, RPh, JD, Nat'l Assoc. of Chain Drug Stores
David Rumburg, RPh, Kmart Corporation
Mark Gregory, RPh, Kerr Drug
Beverly Lingerfeldt, RPh, Kerr Drug
Rodney Cline, RPh, Foster-Rauch Drug Co.
Margaret Sgritta, RPh, Vencor
Fred Eckel, RPh, MS, UNC School of Pharmacy
Davie Waggett, RPh, Winterpark Pharmacy & Seashore Drugs
Jennifer Carroll, PharmD, Wake Forest U. Baptist Medical Center
Dan Garrett, RPh, NCAP Liaison

BACKGROUND

Over the past several years, pharmacists throughout the state have voiced their frustrations with the present quality of the pharmacy workplace. In response to this frustration, the North Carolina Association of Pharmacists, at its May 1999 convention, adopted a resolution statement focusing on workplace issues in pharmacy.

In the fall of 1999, NCAP leadership selected a group of individuals to serve on a Workplace Issues Task Force. The committee was charged with planning a conference to discuss workplace issues in North Carolina.

On February 4-6, 2000, pharmacy leaders met in Greensboro, NC for the annual North Carolina Board of Pharmacy Leaders Forum. The focus of the session was a conference devoted to the discussion of workplace issues. Participants received an information packet, which included a copy of the NCAP Workplace Issues Resolution Statement and the White Paper, *"Implementing Effective Change in Meeting the Demands of Community Pharmacy Practice in the United States"* which served as the outline for discussion of workplace issues.

Meeting participants heard presentations from local pharmacists and technicians representing different areas of practice. These pharmacy personnel discussed their individual perspectives on stress in the workplace, barriers to providing patient care, and suggestions for help from pharmacy leaders.

Presenters were:
Tom Mansbury: Kerr Drug (representing retail chain pharmacy)
Julie Cline: Moses Cone Hospital (representing hospital pharmacy)
Aaron Wright: Mast Long Term Care (representing long-term care)
Phil Stafford: Gate City Pharmacy (representing community independent pharmacy)
Alice Foust: Moses H. Cone Memorial Hospital (representing hospital technicians)
Angela Wagner: Medicap Pharmacy (representing community pharmacy technicians)

After hearing from all the day's presenters, forum participants met in small group sessions to identify the two most critical issues that need to be addressed in order to improve workplace issues. The small groups then determined solutions for assigned topics. Each group defined specific short and long-term solutions as well as assigned accountability to assist with solutions.

SOLUTIONS

Issue: **Dual Role of Prescription Dispensing and Pharmaceutical Care**
Facilitator: Joe Whitehead
Short-term solutions:
• Require certification and registration of pharmacy technicians (Board of Pharmacy)
• Train pharmacists to communicate (AHEC and Schools of Pharmacy)
• Require part of continuing education to be on patient counseling (Board of Pharmacy)
Long-term solutions:
• Legislation to require minimum reimbursement to cover cost and Care (NCAP)

Issue: **Third-Party Issues** Electronic communication, patient education, open communication between providers and pharmacists, payment for pharmaceutical care, formulary elimination updates, drug cost standardization, and utilizing technical personnel.
Facilitator: Mark Gregory
Short-term solutions:
• Open Forum with third-party, patients, pharmacists, and pharmacy benefit managers (NCAP)
• Third-party executives, risk managers, and legistators visits to model pharmacy (NCAP)
• Use technical personnel for third-party billing (Individual Pharmacists)
• Third-party and pharmacy benefit managers "shadowing" of pharmacists and pharmacies (NCAP)
Long-term solutions:
• Patient education of third-party impact (NCAP)
• Educate pharmacists to bill for pharmaceutical care (NCAP)
• Evaluate third-party electronic messages (NCAP)

Issue: **Shortage of Pharmacists in all Practice Settings**
Facilitator: Pam Joyner
Short-term solutions:
• Assist pharmacists in better utilization of resources such as techs/staff, automation, and technology (Management, Schools of Pharmacy, AHEC, and Pharmacists)
• Technician training, retention and, motivation
- develop standards for pay that correlate with responsibilities (employers)
- increase training programs for community pharmacy technicians (community colleges, employers, NCAP)
Long-term solutions:
• Recruiting and retaining pharmacists in practice
- presentations to high school students/college freshman (AHEC, Schools of Pharmacy, Employers, and NCAP)
- work with school advisors/counselors (employers, Schools of Pharmacy)
- develop community pharmacy residencies (employers, Schools of Pharmacy, AHEC)
- increase enrollment in pharmacy schools (Schools of Pharmacy)
- early and positive experiential education (Schools of Pharmacy, AHEC)
- increase opportunities for internships in community and hospital practice (employers and Schools of Pharmacy)

- increase opportunity for pharmacy students to see different practice settings early in curriculum

Issue: **Automation and Technology**
Facilitator: Beth Williams
Short-term solutions:
• Online "help desk" (Insurance Companies)
• Educate public (Insurance Companies, Board of Pharmacy)
• Educate pharmacist (Insurance Companies, Board of Pharmacy, NCAP- Legal and Regulatory R.Ph. forum)
Long-term solutions:
• Portable insurance card (Insurance Companies)
• Physician order entry (NCHICA)
• Affordable dispensing systems

Issue: **Public Health and Safety**
Facilitator: Ross Brickley
Short-term solutions:
• Use GAO/IOM studies (NCAP – public relations, seek help from PhRMA)
• NCCPC to develop demonstration projects on value of pharmacists (Acute, Ambulatory and LTC)
- may require board of pharmacy waivers
- board of pharmacy endorsement of public safety initiatives
• Partner with medical society (NCAP)
- continuing education
Long-term solutions:
• Scientific validation of demonstration projects (NCAP)
• NC Legislature for funding (NCAP)
• Third parties for funding (NCAP)
• Convert demonstration projects into real-life applications for willing and qualified pharmacists (NCAP)

Issue: **Efficient Use of Pharmacy Personnel**
Facilitator: Steve Novak
Short-term solutions:
• Define roles (Board of Pharmacy-publish list and educate via NC Board Newsletter)
- RPh – C-V sales, final check and patient counseling
- Technicians – everything else
• Educate Technicians and hold accountable for support tasks, such as routing of resource, communication, phone traffic, third party, refills, back orders, short fills, inventory controls, outdates and credits. (NCAP and Chain Management, NCAP Practice Forums/ NCAP Technician Practice Forum, Management Training Personnel, NCAP Workplace Issues Taskforce- Benchmarking/Comparison Database)
Long-term solutions:
• Technician Career Support (Pharmacy Managers, District Managers)
- appropriate compensation for retention
- career ladder/certification
- promote role
• Work redesign with improved pharmaceutical care and endpoint (NCAP Practice Forums and education council)
- Pharmacist empowers technician to handle more of the workload.

After presentations of solutions, forum participants were asked to vote for the two solutions/issues that they believed to be the most important. The voting results are listed in the chart below.

PLAN

The Workplace Issues Task Force will reconvene to look at the voting results. At that time, action plans will be formed and information from the workplace issues conference will be sent to key management personnel in all aspects of pharmacy practice. ***To obtain a complete copy of the Workplace Issue Task Force report contact Regina Schomberg at schomberg@wfubmc.edu***

Workplace Issues Task Force Voting Chart

Issue	Action	Long/Short	# Votes	Responsibility
Third Party Efficiencies	Open Forum, 3rd Party, Patient, Benefits Admin.	Short	7	NCAP
Third Party Efficiencies	Patient Understanding of Process	Long	1	PSA
Third Party Efficiencies	Education of RPh to Bill for Pharmaceutical Care	Long	1	RPh
Third Party Efficiencies	Use Tech for 3rd Party Billing	Short	1	RPh
Public Health	Use GAO.IOM Studies	Short	6	NCAP
Public Health	NCCPC for Developing Demo Project of RPh Value	Short	21	NCAP, NCCPC
Pharmacist Shortage	Assist RPh in better utilization of resources	Short	10	Employers, Schools, AHEC
Pharmacist Shortage	Presentations to high school & college students	Long	3	Employers, Schools
Pharmacist Shortage	Increase enrollment in school of pharmacy	Long	1	Employers
Pharmacist Shortage	Increased internships in community & hospital	Long	4	Employers, Schools
Pharmacist Shortage	Tech training, retention, motivation	Short	1	Employers
Pharmacist Shortage	Develop standards of pay that correlate with responsibilities	Short	2	Employers
Pharmacist Shortage	Increase training programs for community practice techs	Short	2	Comm. Colleges, Employers
Automation & Technology	Survey service levels of third parties	Short	15	NCAP, Third parties
Automation & Technology	Portable, single cards	Long	21	NCAP, Third parties
Dual Roles	Legislation that provides reimbursement must at least cover cost	Long	3	NCAP
Dual Roles	Require certification of tech & require them to use it	Short	20	NCAP, Board of Pharmacy
Dual Roles	Train RPh to communicate effectively	Short	1	AHEC, Schools
Dual Roles	Early clinical intervention by pharmacists	Long	6	AHEC, Schools
Effective Use of Pharmacy Personnel	Educate and hold techs	Short	2	NCAP
Effective Use of Pharmacy Personnel	Recognition of responsibility	Long	1	RPh
Effective Use of Pharmacy Personnel	RPh 'let go' of tech control	Long	1	NCAP

Blue Cross/Blue Shield
Forming Pharmacist Advisory Committee

by Miranda Yeager-Weaver

Third party payer. Three little words that, according to pharmacists and technicians in a variety of practice settings, are a leading cause of stress in the workplace. Many issues were recently identified as stressors in the workplace at the recent Workplace Issues Conference held in conjunction with the North Carolina Board of Pharmacy Leaders Forum. Among the issues identified, pharmacists and technicians in many different practice settings mentioned "third party" as a leading stressor. Blue Cross and Blue Shield of North Carolina (BCBSNC) is looking for opportunities to implement programs or changes that will minimize workload and frustration for community pharmacists.

For example, when Blue Cross and Blue Shield of North Carolina began using PAID Prescriptions, L.L.C., as its pharmacy benefits manager, all members were given the same group number. Any BCBSNC member with a PAID drug card uses "BNCDRUG" as their PAID group number. This allows BCBSNC to change a member's benefits without changing their group number. More importantly, it means fewer denials for the reason "patient not covered" when the pharmacy benefits change but the member is still enrolled with BCBSNC. It also means pharmacists and technicians do not have to change the patient's third party profile every time they get new pharmacy benefits.

The first of the year is a very hectic time in pharmacies because so many patients have new insurance. Typically, it is a very busy time for BCBSNC as well. BCBSNC usually receives thousands of calls when prescriptions do not process correctly the first time because the member's group number has changed. In January 2000, BCBSNC reported very few calls for this problem because of the new umbrella group number, "BNCDRUG."

This is the type of program BCBSNC looks for to minimize claims processing problems. To help identify and implement more of these programs, BCBSNC is exploring the creation of a Pharmacist Advisory Committee. While the details of the committee's roles and responsibilities are still being finalized, it is anticipated that the advisory committee will provide feedback to BCBSNC on current pharmacy programs and proposed changes. Topics discussed may include prior approval or quantity limitation programs, application of point-of-service edits and member education. The group may also serve as a review board for BCBSNC's quarterly pharmacy newsletter, Pharmacy Focus.

In the coming months, BCBSNC will be finalizing plans for the Pharmacy Advisory Committee and will be looking for approximately five pharmacists to serve. BCBSNC will work with NCAP and Dan Garrett, NCAP executive director, to identify pharmacists for this committee who both participate in the BCBSNC network and have a strong voice in the pharmacy community. ❖

About the Author...

Miranda Yeager-Weaver, RPh, MS, is director of pharmacy for BCBSNC where she has been employed for the last three years. She can be reached by e-mail at Miranda.Weaver@BCBSNC.com.

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Annual Winter Meeting 2000

The North Carolina Pharmacy Annual Winter Meeting, sponsored by the University of North Carolina School of Pharmacy, Campbell University School of Pharmacy, Greensboro AHEC, and NCAP, was held February 24-25, 2000 at the Holiday Inn Four Seasons in Greensboro. There were 285 registrants and 45 exhibitors. We'd like to thank those exhibitors who contributed their time and money to help make the conference a success. Platinum Sponsors included Bayer, ESI/Lederle & Wyeth Labs, Glaxo Wellcome, Merck, Pfizer and Bristol-Myers Squibb. AmeriSource was a Silver Sponsor.

Whit Moose, accompanied by his wife Dot, receives the 1999 Don Blanton Award from NCAP President Kevin Almond. The award is presented each year for leadership in North Carolina pharmacy.

UNC's Sherrie Moore oversees registration.

Bill Post and Jerry Kennedy.

Highlights of the Winter Meeting included the presentation of awards to several individuals for their exceptional service to the citizens of North Carolina during Hurricane Floyd. These individuals went beyond the call of duty to assist in the disaster relief effort by delivering critical pharmaceuticals, staffing emergency centers and working in partnership with other agencies and organizations.

Front Row: Board of Pharmacy Executive Director David Work, Charles Reed, Steve Hudson, Jack Watts, Al Lockamy, Back Row: Rick Jeeter of Bindley Western, Jason Ward, Brian Stewart, Josh Kohler, and NCAP Executive Director Dan Garrett.

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Carolina Regional Conference for Consultant Pharmacists

The Carolina Regional Conference for Consultant Pharmacists was held March 10-11, 2000 at the University Hilton in Charlotte, NC. Twenty-five exhibitors and 146 participants from North Carolina, South Carolina, Virginia, Tennessee, West Virginia, Georgia, Ohio and Pennsylvania attended. Friday's topics included information on Senior Care Pharmacy and Liability of the Senior Care Pharmacist. Breakouts included updates on North Carolina Assisted Living Regulations, Stroke Prevention, COPD, CHF assessment, and Nutritional issues.

Chronic Care

Saturday's schedule included a morning session on Assessment and Treatment of Depression with a focus on the demented resident. The program ended with an excellent presentation on anemia followed by a review of osteoporosis prevention and treatment.

On Saturday the Chronic Care Forum had a breakfast and review of the collaborative practice act, an introduction of new officers, and a discussion on Section U implementation of the MDS.

Consultant Pharmacists enjoy lunch at the Regional Conference in Charlotte.

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Hospital Program Boosts Adult Vaccination Rate

Acute Care

Pneumonia and influenza cause significant morbidity and mortality in elderly and chronically ill patients. Of the estimated 31 million persons over age 65, only 28% have ever received the pneumococcal vaccine.[1] Less than 20% of chronically ill patients aged 50-64 are estimated to have received the vaccine. The influenza vaccination rate in eligible patients is approximately 52%.

The Center for Disease Control (CDC) recommends several strategies for improving vaccine delivery to at-risk patients. A hospital-based immunization program is one of these recommended strategies. Approximately two-thirds of patients admitted with serious pneumococcal disease have been hospitalized within the previous 4 years, but few have received the vaccine.[1] A statewide initiative is underway to boost vaccination rates in health care institutions through development of standing orders.

by Anna D. Garrett & A. Leah Daggett

These statistics led us to create and implement a pilot program at High Point Regional Hospital designed to increase our adult vaccination rate on the inpatient medical service. We developed a pharmacist-managed protocol for administration of influenza and pneumococcal vaccines that began in October of 1999. The criteria for administration of the vaccines are the same as those recommended by the CDC.

Each day, pharmacists who are stationed on patient care wards assess new admissions for vaccine eligibility. After obtaining patient consent, the pharmacist writes orders for the appropriate vaccination and leaves a vaccination record with the nurse to place in the chart after administration of the injection. A copy of the information is faxed to the patient's primary care physician. The Hospitalists, who staff the inpatient medical service, are always available to consult on patients whose eligibility is questionable.

We are very pleased with our initial efforts. During the period from October through December, approximately 225 total vaccinations were given to our patients. This is approximately 10 times the number of vaccines given during the same period in 1998.

Two problem areas have been identified that we are in the process of addressing. This service is not offered on weekends due to manpower issues, so patients may be discharged before they can be vaccinated. Also, we have had problems obtaining vaccination records and consent for vaccination for nursing home patients. There is a significant opportunity to work with the nursing homes from which we receive large numbers of patients to develop standing orders for vaccinations.

We are now beginning to work through our multidisciplinary Pulmonary Group Practice Committee to expand the program to all services in our institution. Implementation of standing orders will increase the vaccination rate even further. We hope to have this project completed by next September in time for influenza season. ❖

1. CDC. Prevention of Pneumococcal Disease: recommendations of the Advisory Committee on Immunization Practices. MMWR 1997;46:RR-8.

This article also appears in the *Medical Review of North Carolina.*

About the Authors...

Anna D. Garrett, PharmD, BCPS is a clinical pharmacist at High Point Regional Hospital and specializes in the area of infectious diseases. She can be reached at 336.878.6048 or by e-mail at agarrett@hprhs.com.

A. Leah Doggett, MS, MD is the Medical Director for Cornerstone Inpatient Services in Highpoint, NC.

RPh PAC Needs Your Support!

Dear Fellow Pharmacist,

Every two years each legislator must run for re-election. We are currently in that cycle as well as the four-year cycle, which finds all Council of State (Governor, Lt. Governor, Secretary of State, etc.) offices up for election. As you can see, there is going to be a major political change in North Carolina.

During the election season, which runs through the November general election, candidates ask individuals as well as Political Action Committees to contribute to their campaigns. This presents an opportunity for pharmacy to step up and be recognized as a leader in the state political process. We have been involved more and more each cycle and need to surpass those efforts during this cycle.

The PAC is asking every pharmacist in North Carolina to contribute to this cause. **It is extremely important that the legislators and the Council of State view pharmacy as a real player in the political process.** When a PAC has a large financial base and is considered to be in the top 10 in the state, that group (pharmacists) is perceived to be a group that must be heard from when issues arise. It also creates invitations from legislators to discuss positions on other matters concerning health care in general. I hope you can see how important it is to have a large PAC and to use the funds wisely. This contribution does not reflect your political preference. It only stresses your commitment to the pharmacy effort.

Please write a check today.

To the best PAC in North Carolina,

Mike James, President
RPh PAC

Randy Ball
Chair, Ambulatory Care Practice Forum

Vance Collins
Chair, Acute Care Practice Forum

Mike List
Chair, Chronic Care Practice Forum

Jane Younts
Chair, Technician Practice Forum

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Licensure Transfer Requests Decrease Slightly in 1999

For the second consecutive year, the number of licensure transfer requests submitted to NABP decreased slightly. In 1999, NABP received 5,583 requests, 148 fewer than the 1998 total of 5,731.

While the exact reasons for the lower numbers in 1998 and 1999 are unknown, factors may include the country's low unemployment rate and the pharmacist's manpower shortage. Pharmacists do not need to move in order to find work.

NABP President Dyke F. Anderson notes that during each of the past ten years there have been small variations in the number of requests for licensure transfer. "The drop in the fee for transferring to an additional state made 1997 an exception to the trend," he pointed out. The decrease we are seeing now is just a return to a normal level of activity. We do not consider a decrease of approximately two percent significant."

The actual number of pharmacists who applied for licensure transfer in 1999 decreased by 75 applicants, from 4,723 in 1998 to 4,648. This figure, in comparison to the 5,583 total requests, indicates 935 of the requests may be related to the multistate discount offer.

When comparing data for 1998 and 1999, Arkansas had the greatest net increase of licensees from transfers with 83 more applications coming into rather than leaving the state. Washington state saw the greatest net decrease in licensees from transfers with 90 more applications out of state than into the state.

North Carolina Leads in Licensure Transfer Requests Into the State

In 1999, North Carolina led in the number of requests for licensure transfer into the state, at 359, while 142 requests were made to transfer out.

Texas was second in transfer requests into the state with 281. However, an even larger number of requests, 324, were made to transfer out of the state. Virginia and Tennessee were a close third and fourth in licensure transfer requests into their states, at 251 and 234 respectively.

As in 1997 and 1998, Pennsylvania saw the greatest number of requests to transfer licenses out of that state, at 444, while 202 requested transfer into the state. New York came in second for transfer requests out of the state with 397, and 183 requests to transfer licensure into the state. Much of this activity may be related to the fact that both states are home to four and five colleges of pharmacy respectively.

California and Florida do not currently participate in the Licensure Transfer program. An attempt to pass legislation in Florida that would allow the state to participate in the Electronic Licensure Transfer Program (ELTP) is in committee to be introduced during the spring legislative session. ❖

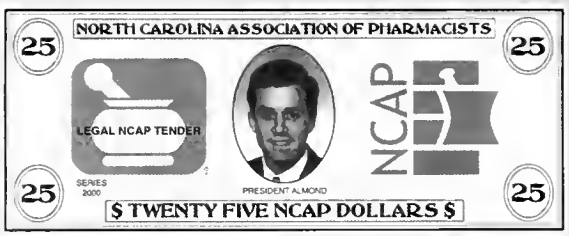
(reprinted from the National Association of Boards of Pharmacy Newsletter, Volume 29, Number 2, February 2000)

$ Earn NCAP Dollars by Recruiting New Members $

Members of the North Carolina Association of Pharmacists are now be eligible to earn "NCAP Dollars" for each new member they recruit. NCAP Dollars can be used to help cover registration fees for a meeting or you can apply them to the cost of your membership renewal for 2001.

Here's how NCAP Dollars work: Each time you recruit a new member, ask them to indicate on the signature line of the membership form that you are their recruiter." When we receive the form, you will immediately be rewarded with the appropriate amount of NCAP Dollars. The more members you recruit, the more NCAP Dollars you earn! The following NCAP Dollar values will be rewarded for each recruit accordingly:

If you recruit:	**Then you earn:**
Active Pharmacist =	25 NCAP Dollars
Associate =	25 NCAP Dollars
Retired Pharmacist =	10 NCAP Dollars
Resident/Fellow =	10 NCAP Dollars
Out of State =	10 NCAP Dollars
Technician =	5 NCAP Dollars
Student =	5 NCAP Dollars



Another way to earn NCAP Dollars is by wearing your membership pin, or by displaying a membership certificate in your pharmacy. As President Kevin Almond travels across the state he will make surprise visits to various pharmacies. When he finds a pharmacist who is wearing an NCAP pin or displaying a membership certificate he will award them with 25 NCAP Dollars. A photo will be taken and published in the *North Carolina Pharmacist*. Each issue will feature a different pharmacist proudly displaying allegiance to NCAP. **Please note: NCAP Dollars will expire Dec. 31, 2000.**

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Gate City Has Formula for Solving Problems

At Gate City Pharmacy in Greensboro, phones ring, customers bustle in and out, and pharmacists fill prescriptions. Clerks ring up customers' orders and a technician helps ostomy patients with product selection.

The pharmacists also prepare compounded medications, offer advice about natural health products and give patients educational support. It maintains the traditional quality and service of a community drug store with the state-of-the art training and equipment of a high-tech pharmacy.

Nine pharmacists, including one with a doctorate, work here in various shifts. Being a compounding pharmacy is somewhat unusual in the age of manufactured drugs. Most pharmacies that compound are independent pharmacies rather than chains.

If a toddler needs a medication that's manufactured only as a tablet with an adult strength—no problem. The Gate City pharmacists can prepare a reduced dosage for the child in a liquid form that he can swallow. If it's bitter, they can add a little tutti-frutti or raspberry syrup to make it go down with a smile. For their animal customers, fish flavor is a favorite among the veterinarians.

Gate City Pharmacy has been involved in compounding medications since it opened at Friendly Center in 1967, but increased its compounding business in the early 1990's after joining the Professional Compounding Centers of America (PCCA), based in Houston. PCCA provides its members with training, bulk orders, equipment and technical support.

"We realized there was a need in the medical community for those unique formulas," said staff pharmacist Janie Skertich.

"Originally, most of our compounding was for dermatologists," said Ronny Buchanan, who has operated the pharmacy for 32 years. Pharmacists Donna Church and Skertich attended a PCCA seminar, where they learned to create such sterile products as eye drops and injectables. Recently, a third pharmacist attended a PCCA seminar and next spring, two more of the pharmacists will attend, and eventually all will take the training. But they do not have to wait to compound medications because Skertich and Church have spent hours teaching the others what they learned.

"We make a lot of liquid preparations," said Skertich. "We encapsulate pharmaceuticals that cannot be swallowed in tablet form."

Ambulatory Care

Compounding pharmacists can increase or decrease the strength of a medication, add flavoring, or change the delivery system to make it easier to ingest. These changes increase compliance, Skertich said. Gate City pharmacists compound eye drops, injectables, capsules, suppositories, suspensions, and topical creams and gels.

For patients who are allergic to a dye or another inactive ingredient in a manufactured medication, compounding pharmacists can mix a preparation without that ingredient. And they make medications in nasal-spray form for patients who can not take them in another form. For people with gum disease or gingivitis, they create oral rinses prescribed by dentists.

Phil Stafford and Janie Skertich select an over-the-counter product that is compatible with a patient's prescription medication. Photo by Barnett Photography.

In the case of one medication, a manufacturer stopped making a sterile steroid ophthalmic preparations, but Gate City pharmacists responded to the continued need for the preparations by compounding it per physician request.

Gate City Pharmacy strives to be a problem-solver, Skertich said. "If doctors are faced with a problem and their regular drug store can not meet the need, we want to be the pharmacy they call to formulate it." If a prescription is for something unusual and the pharmacists do not have the formula, they call PCCA for the formula.

The compounding pharmacists have mastered the tricky capsule-assembling machine and have learned how to use the laminar flow hood. The flow hood allows them to prepare eye drops, eye ointments, injectables and other products that require sterility. They scrub up, pull on gloves and work inside a sterile environment with circulating air to prevent contamination. For pharmacists, compounding medications breaks up the counting and measuring routine of filling prescriptions. "I like the challenge," said Church.

"We mix creams and ointments routinely," Skertich said. For

patients in whom anti-inflammatory tablets cause stomach upset, the pharmacists have made topical anti-inflammatory creams and gels. The absorbing cream or gel penetrates the area of inflammation.

For one patient, who has lost the ability to swallow tablets and capsules, they provide solutions and syrups. This has allowed him to stay at home; otherwise, he would be hospitalized, Skertich said.

Compounded medicines generally cost less than manufactured drugs. "The manufacturer charges you for research and development," Buchanan said. With eye drops, for example, "we can make them at a fraction of the cost." And because patients are more likely to take a drug custom-made to suit them, compounding enhances compliance, which should lead to better results.

Soon, medications will include DNA materials, Buchanan said. Compounding pharmacists will be the ones dispensing these biotech medications because they will have a short shelf life and they will require specialized equipment only found in a compounding center.

Because the FDA says that pharmacists may compound medications only for unsolicited, individual prescriptions, Gate City Pharmacy specializes in meeting the needs of the individual prescription.

Another kind of individual attention Gate City Pharmacy provides is to keep an eye on drug interactions. "Gate City pharmacists specialize in scanning a patient's medication chart and picking out interaction, not just relying on the computer, thus helping with drug-utilization review and maintaining our high standards for monitoring drug interaction," Skertich said. Disease-state management is another customized service that Gate City wants to offer. Skertich is certified in disease-state management in asthma. This in-depth patient counseling reduces costs to the patient and helps control the disease. It is cost effective for the health care system because it brings about greater compliance and more efficient use of medications, Skertich said.

The pharmacy also gives customers guidance for the herbal-based items it offers. Buchanan said, "We get many questions and we must be informed on the alternative products."

One Gate City pharmacist specializes in software and computer upgrades, making sure the pharmacy is running at the highest level of efficiency. The pharmacy has a strong support staff, employing 27 people, including technicians and clerks. And if the store does not have something customers need, the staff will order it for them. "A lot of times, it's a one-day turnaround," Buchanan said.

"That's why we have loyal customers," Skertich said, "because we go that extra mile for them." ❖

(reprinted from M.D. News Magazine, Piedmont Triad Edition)

Gate City Provides NCAP Membership to Employees

Gate City Pharmacy is one of many companies that cover the cost of NCAP membership for their employees.

"We've been doing this for a long time," said Gate City owner Ronny Buchanan, "We want to make sure our pharmacists are members of NCAP. It's important for my people to stay informed, especially about state issues. We feel the more members NCAP has, the greater chance we have for success." To find out how you can help your employees benefit from an NCAP membership call 919.967.2237. ❖

APhA Honors Miall for Asheville Project Work

John P. Miall, Jr., Senator Edward M. Kennedy and HHS Secretary Donna E. Shalala were selected by the American Pharmaceutical Association Board of Trustees as Honorary Members of the Association. They were honored during the annual APhA meeting in Washington, DC, March 10-14, for the significant impact their work has had on public health. Miall was recognized for his leadership in the City of Asheville diabetes project (The Asheville Project) and his belief in the value that pharmacists can add to the healthcare system and to the quality of diabetic patients' lives through drug therapy and disease management. He serves as Director of Risk Management for the City of Asheville.

The following editorial, reprinted with permission, appeared in the February 28, 2000 issue of the *Asheville Citizen-Times*.

Feeling Good About the Asheville Project

Former Vice President Hubert Humphrey, former Surgeon General C. Everett Koop, Asheville City Risk Manager, John Miall. Members of the American Pharmaceutical Association are not cavalier about to whom they bestow their highest honor. Miall captured the attention and admiration of the nation's oldest and largest professional association of pharmacists. In the group's history, he is only the 49th person to receive an honorary membership award. Miall's work with The Asheville Project, a health-maintenance program for city employees with chronic illnesses, is recognized as a landmark in patient care.

In the 1996 pilot program, 38 diabetic city employees were paired with 25 local pharmacists who coached and monitored the workers through a regiment of diet, exercise and medication. Mission St. Joseph's Hospital covered the cost of education programs not normally covered by city insurance. The result: 90 percent of the study group demonstrated significant improvement in blood sugar levels, employee sick days were cut in half and the city saved $25,000 in health care costs. The biggest benefit: participants report feeling healthier and happier. Currently the diabetes program has 70 active participants, an expanded asthma group has been formed and plans are under way for a hypertension and high cholesterol group of city-insured workers. Thumbs up for John Miall, the city of Asheville and Mission St. Joseph's Hospital for understanding that some programs with high front-end costs actually save lives and dollars over the long term. There has never been a better time than now to support health care programs that really work. ❖

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NCAP Partnering to Promote Good Health

Heart Disease & Stroke Prevention Counter Cards to be Distributed

The North Carolina Association of Pharmacists is partnering with the North Carolina Heart Disease and Stroke Prevention Task Force to promote cardiovascular health throughout the state. The Task Force was established by the North Carolina General Assembly in 1995 and charged with developing a profile of the burden of cardiovascular disease, publicizing that profile and its preventability, and developing a comprehensive statewide plan to prevent it. The plan outlines a community based approach to addressing the known modifiable risk factors for CVD which include physical inactivity, poor nutrition, tobacco use, diabetes, hypertension, high cholesterol and overweight/obesity.

Robert Bizzell of Kinston, NC was recently appointed by Governor Hunt as the Pharmacy Representative to the Task Force.

"I'm honored to be the 'pharmacists' voice' on the Task Force. Cardiovascular disease and stroke prevention have not received enough attention in our state. This will raise our level of awareness. I'm hoping pharmacists will utilize the Task Force to help increase the quality and quantity of patients' lives." he said.

Dan Garrett, NCAP Executive Director, and Steve Kearney, NCAP Chair of the Professional Relations Council, are volunteer members of the Governor's Task Force.

In May, counter cards will be distributed to pharmacies in North Carolina through wholesalers. These counter cards offer valuable information about heart disease and stroke prevention. You can help with this project by making the counter cards available to your patients. For details visit www.startwithyourheart.com or call the NCAP office at 919.967.2237.

NCAP Establishes Tobacco Free Pharmacy Recognition Program

NCAP is also working in conjunction with the North Carolina Tobacco Prevention and Control Branch to establish a Tobacco Free Pharmacy Recognition Program. Pharmacies that do not sell tobacco products and/or offer smoking cessation counseling to patients will receive a certificate and recognition in the *North Carolina Pharmacist.*

"We look forward to working with NCAP to promote tobacco free pharmacies," said Sally Herndon Malek with the North Carolina Division of Public Health.

The North Carolina Tobacco Prevention and Control Branch works to improve the health of North Carolina residents by building the capacity of diverse organizations and communities to carry out effective program initiatives /goal areas to:

- prevent youth tobacco use and access to tobacco
- promote and support quitting among tobacco users
- promote smoke free environments
- reduce disparities by improving the health related norms of populations more adversely affected by tobacco use.

If your pharmacy does not sell tobacco products, or if you offer smoking cessation counseling, NCAP would like to know. Please contact our office so that we may recognize you for promoting a tobacco free environment. ❖

Small Doses

Call for ASHP Issues

The American Society of Health-System Pharmacists regional delegates conference and House of Delegates meeting will be held in the next several months. ASHP policies originate through the House of Delegates and your input is important. If you have any health-system pharmacy issues that you would like to see addressed please contact one of the following delegates:

Dennis Williams	ph# 919.962.7122 dennis_williams@unc.edu
Vance Collins	ph# 252.535.8271 vcollins@halifaxrmc.org
Julie Kirk	ph# 336.716.9043 jkirk@wfubmc.edu
Bill Harris	ph# 919.681.5674 harri034@mc.duke.edu

Revolutionary Meeting

The American Society of Health-System Pharmacists Annual Meeting 2000 will be held June 4-7 in Philadelphia, PA.Make your plans to attend today! For more information call 301-657-3000 or visit www.ashp.org.

NC Folic Acid Facts

On an average day in North Carolina, 8 babies are born with a major birth defect. Neural Tube Defects (NTDs) are among the most common, serious, and preventable birth defects that occur in the US. North Carolina has one of the highest incidences of NTDs in the country, with approximately 1 in 500 pregnancies being affected by an NTD annually. While national NTD rates have been declining, the rates in North Carolina have not followed this trend. *(NC State Center for Health Statistics)* It has been proven that taking the B-vitamin Folic Acid in the form of a vitamin supplement *before* conception and throughout pregnancy can help reduce the risk of an NTD-affected pregnancy by up to 70%. The U.S. Public Health Service recommends that all women of childbearing age consume 400 micrograms of folic acid everyday. Data from the North Carolina Pregnancy Risk Assessment Monitoring System survey indicates that less than 25% of women take a vitamin with folic acid on a daily basis. A 1998 March of Dimes Provider Survey on Folic Acid found that while a majority of clinicians know the U.S. Public Health Service guidelines, less than 30% offer women information and advice about folic acid consumption. The survey also found that 30% of providers do not know the recommended amount of folic acid for women of childbearing age, and only half know that a woman is unlikely to get enough folic acid through her diet. To learn more about the North Carolina Folic Acid Campaign, contact Sarah Verbiest, March of Dimes, (919) 781-2481.

Ladies Auxiliary

Calling all Auxiliary members! It's renewal time. We need you to continue our scholarship funds and service projects. Dues are $25.00. Mail your check today to:

Jean Morse
1419 Chester Road
Raleigh, NC 27608
919.834.8195

We appreciate your continued support and welcome new membership.

Disaster Response Workshop

A Community Pharmacist Disaster Response and Recovery Workshop will be jointly sponsored by the School of Pharmacy, and School of Public Health at the University of North Carolina at Chapel Hill, Guild of Public Health Pharmacists Carolina Association of Pharmacists, and North Carolina Primary Health Care Association. The workshop will be held Saturday, April 29, 2000 at the UNC School of Pharmacy, Chapel Hill, NC. For more information call (919) 966-8138.

NCHICA Conference

The North Carolina Healthcare Information and Communication Alliance sixth annual conference will be held September 10-12, 2000 at The Grove Park Inn Resort in Asheville, NC. For more information visit www.nchica.org.

2000 Calendar

April 18: • Membership and Marketing Council meeting at NCAP • Workplace Issues Task Force meeting at NCAP

April 20: • Board of Directors Meeting at NCAP • Accute Care Practice Forum meeting at NCAP • Finance Committee meeting at NCAP

May 8: Technician Practice Forum, Greensboro

May 18: Board of Directors Meeting at NCAP

September 7-10: Annual Convention/Pharmacy Practice Seminar, Wilmington.

October 10-12: Annual Carolina Seminar, Greensboro.

Please visit our website at www.ncpharmacists.org for more information on upcoming meetings and events.

NC Pharmacist Classifieds Move to Website

The Classified Ad section in *North Carolina Pharmacist* has moved to the NCAP Website (www.ncpharmacists.org). If you are seeking employment or a special service, you may find what you're looking for there. You can also take advantage of a great opportunity to advertise to a large audience by posting a classified ad on the web. We are advertising our Website Classifieds in *AJHP* (circulation 39,502), and *Pharmacy Times* (circulation 113,126). This means pharmacy professionals from across the country will have quick access to your ad, making it easier for you to find the right employees to keep your pharmacy fully staffed. If you'd like more information on the Website Classifieds, please contact the NCAP office at 919.967.2237 or e-mail us at journal@ncpharmacists.org.

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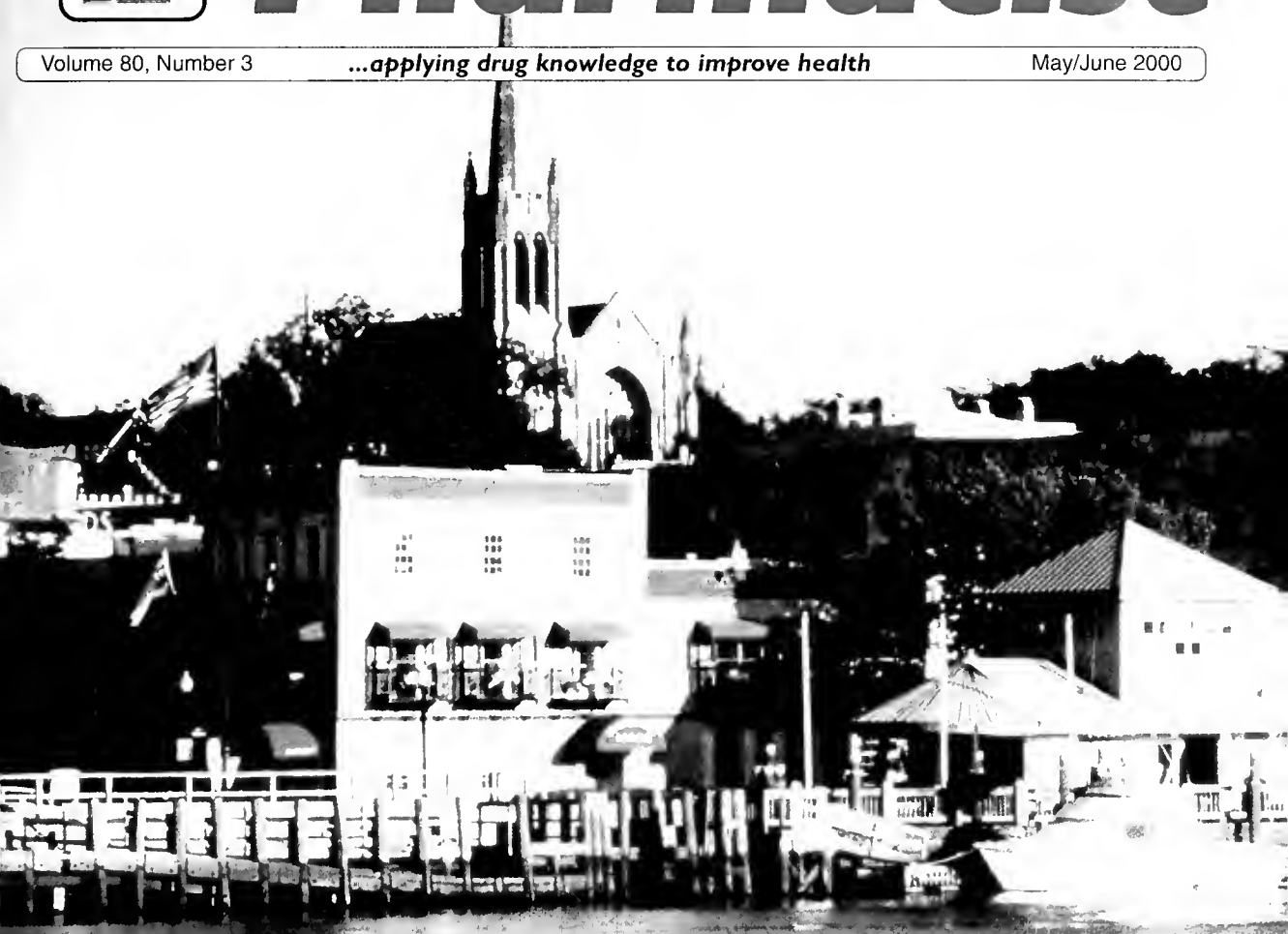
North Carolina Pharmacist

Volume 80, Number 3 ...applying drug knowledge to improve health May/June 2000



Join Us In Wilmington

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&

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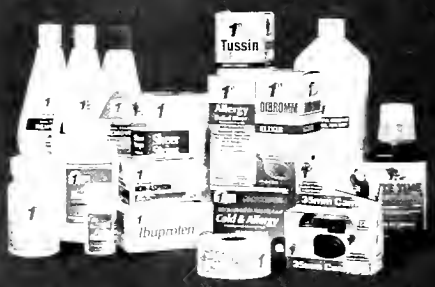
New Members Can Join NCAP at Reduced Rates! page 23

FEW THINGS ARE BIGGER THAN 1ST CHOICE MARGINS.



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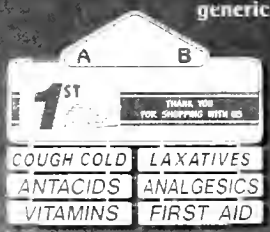

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North Carolina Pharmacist

Volume 80, Number 3 ...*applying drug knowledge to improve health* May/June 2000

Inside

On the Cover: Historic downtown Wilmington, NC as seen from the Cape Fear River. Cover photo by Bill Russ, North Carolina Division of Travel and Tourism.

Daniel G. Garrett
Executive Director

Voice & Vision

Taking a Stand on Prescription Drug Assistance for Senior Citizens

The following letter to the editor, outlining NCAP's stance on prescription drug assistance for senior citizens, has been published in newspapers across North Carolina.

There appears to be little debate in Washington over the need for prescription drug benefits for senior citizens. There is however, much debate about how to achieve this goal. Each day pharmacists face the challenge of providing medication to seniors and ensuring that these medications are used safely. I write on behalf of the North Carolina Association of Pharmacists (NCAP), which represents practicing pharmacists in our state.

We are part of a workgroup formed by the North Carolina Division of Aging. Our workgroup received input from all stake holders then developed a plan for providing medications to those with the greatest need. The result of this work is the Prescription Drug Assistance Proposal which will soon be considered by the North Carolina General Assembly. We would like to emphasize several elements we believe are essential to make sure those in need receive proper medication.

- We need to directly support medication access for those who need it most, preserve private sector medication benefits currently in use, and provide an affordable option for all seniors.
- Use federal grants to support efficiently run state and local programs.
- Patients should be allowed to work with their physicians and pharmacists to determine which medications work best for them and not have this dictated by a formulary.
- Programs must include medication case management services by pharmacists to prevent adverse effects and promote patient therapy adherence.
- Standard prescription cards and streamlined systems are needed to reduce the insurance hassle encountered by both patients and providers.
- Reasonable and timely reimbursement for providers is needed to assure access in all areas served by community pharmacy practitioners.
- Pharmacists should be able to collectively negotiate with prescription card programs and insurers.
- Programs must support adequate reimbursement for intravenous and other medications requiring special handling and packaging

North Carolina has a proven track record for innovation in the use of medications to improve health. We have recently received recognition in the media for the nationally acclaimed "Asheville Project," a program which saves money and improves the health of people with diabetes and asthma. Pharmacists in western North Carolina are now helping 165 patients in this program and we are planning to replicate this effort in other communities.

Proper use and access to medications are the key to helping people stay healthy and avoid unnecessary medical bills. A national Medicare drug benefit is essential to the solvency for Medicare for the next generation. Applying your pharmacist's knowledge to your individual health care needs will contribute to your overall health and your financial well being.❖

Dan Garrett can be reached at dan@ncpharmacists.org or 800.852.7343.

Call for 2000 Award Nominations

It is a privilege for the North Carolina Association of Pharmacists to recognize excellence within the profession. NCAP will hold its Awards Ceremony on September 7 during the Convention in Wilmington, NC. The Board of Directors invites NCAP members to nominate members for the following awards:

Don Blanton Award
Presented to the pharmacist who has contributed most to the advancement of pharmacy in North Carolina during the past year. This award was established by Charles Blanton in memory of his father, Don Blanton, who served the North Carolina Pharmaceutical Association as President 1957-58.

DuPont Innovative Pharmacy Practice Award
Presented to a pharmacist practicing in North Carolina who has demonstrated Innovative Pharmacy Practice resulting in improved patient care.

Pharmacists Mutual Distinguished Young Pharmacist Award
Criteria for this award: (1) Entry degree in pharmacy received less than 10 years ago (1990 or later graduation date); (2) Licensed to practice pharmacy in NC; (3) Actively practices retail, institutional, managed care or consulting pharmacy; (4) Participates in national pharmacy associations, professional programs, state association activities and/or community service.

Continued on page 8

North Carolina Association of Pharmacists
109 Church Street
Chapel Hill, NC 27516
phone (919) 967-2237
fax (919) 968-9430

Kevin L. Almond
President, NCAP

Fellow Pharmacists,

This month marks the end of NCAP's first six months. Looking back over what's been accomplished, the membership, the staff, and the Board of Directors have much to be proud of. Besides combining the everyday operations of four different pharmacy associations into one, NCAP has succeeded in revamping the *Carolina Journal of Pharmacy* into *North Carolina Pharmacist*, complete with a new masthead and layout, and our web page is continually being updated and improved. We hope our membership will utilize our website frequently and inform us of items that should be included.

The February winter meeting in Greensboro exceeded the previous year's attendance and is due, in part, to excellent programming that our Education Council is to be commended for. Thanks to the breadth of practice and experience represented on that Council, programming appeals to a wide range of practice, and post-meeting evaluations gave the topics high marks. NCAP will continue to strive to meet the needs and desires of our membership in this as well as other ways.

Another change, which occurred in May, was the elimination of NCPhA's annual convention. Instead, the membership's annual meeting will occur September 7 and 8 in conjunction with the annual pharmacotherapy meeting in Wilmington. Several factors contributed to this development, including changing demographics of our membership, success of the pharmacotherapy meeting, attractiveness of the Wilmington venue, and advantages of focusing our efforts towards one meeting as opposed to two separate meetings. The combination of meetings should have a synergistic effect for our members, for sponsors, for accommodations, and especially for our staff.

The Wilmington conference will offer excellent programming and ample free time to network with colleagues—we all know that just as much learning goes on in the hallways, receptions and exhibits as in the meetings themselves. In addition, if spouses are attending, Wilmington offers an excellent climate, a beautiful historic district, shopping, nearby tourist attractions.....oh, and the beach. With the newly expanded Hilton convention center on the riverfront and wonderful local eateries, there cannot be many better venues. Please plan now to attend.

On behalf of the staff and Board of Directors, we look forward to seeing you there!

Sincerely,
Kevin Lee Almond, RPh
President, NCAP

...applying drug knowledge to improve health

Building Bridges to Pharmacy's Future

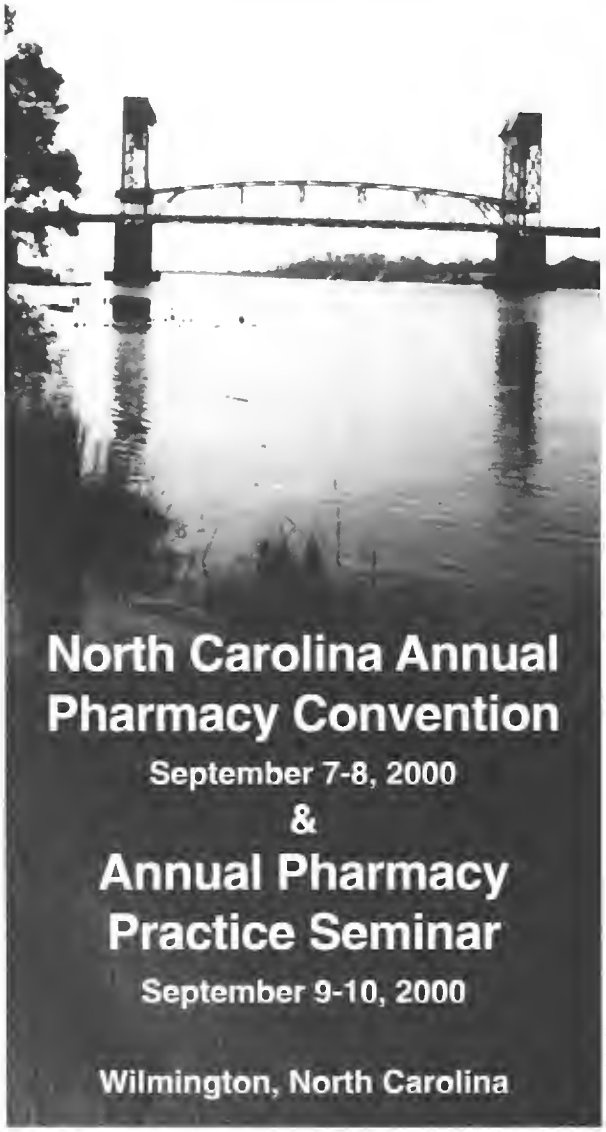

Photo by John Newton

Join us in Wilmington

From its 31 miles of pristine shoreline to the golden waters of the Cape Fear River, North Carolina's Cape Fear Coast will welcome convention attendees with wide sandy beaches, lovely gardens, historic sites, and fine dining. The Cape Fear Coast offers limitless activities including tours of the majestic Battleship U.S.S. North Carolina, deep-sea fishing, and golf at some of the finest courses in America. The Cape encompasses the city of Wilmington and the island communities of Wrightsville Beach, Carolina Beach and Kure Beach. Its uncrowded shoreline and nearby estuarine reserves provide a true haven for nature lovers. Whatever your pleasure, you're sure to find what you're looking for in this vacationland for the discriminating traveler. If you'd like more information about the Wilmington area call the Cape Fear Coast Convention and Visitors Bureau at 800.222.4757.

North Carolina Annual Pharmacy Convention

September 7-8, 2000

Tentative Schedule

Thursday, Sept. 7: *Building Pharmacy's Future*

11:00 a.m.	Registration & Exhibits (Exhibits end @ 12:30 p.m.)
12:30 - 2:30 p.m.	Automation & Technology in Community Pharmacy Practice (2 hours), Bill Felkey (@ Auburn University School of Pharmacy)
2:30 - 2:45 p.m.	Break
2:45 - 3:45 p.m.	Compounding in Community Pharmacy Practice (1 hour), Bill Letendre, M.S. Pharm., M.B.A., Director, P*ceutics Institute (PCCA) Houston, TX
3:45 - 4:45 p.m.	The Asheville Project: Implications for Pharmacy Practice (1 hour), John Miall, Risk Manager, City of Asheville
5:00 - 6:00 p.m.	Awards Ceremony, Business Meeting, & Installation of Officers
6:00 - 8:00 p.m.	Exhibits & Reception for Awards Recipients

Fri., Sept. 8: *Improving Pharmacy's Workplace*

7:00 a.m.	Registration, Continental Breakfasts, & Exhibits (Exhibits/Breakfast end @ 8 a.m.)
8:00 - 9:00 a.m.	Clinical Pharmacist Practitioner Act Update/ Pharmacy Regulations Update (1 hour), Dan Garrett (Executive Director, NCAP) & Dave Work (Executive Director, NCBOP)
9:00 - 10:00 a.m.	Managed Care & PBM's: Where is the Pharmacy Benefit Going? (1 hour), Louis Newsome (United Health Care) & Timothy Kurek (Cigna)
10:00 - 11:00 a.m.	Break & Exhibits
11:00 a.m. - 1:00 p.m.	Stress Management for the Busy Pharmacist: Practical Solutions that make a Difference (2 hours) Wayne Sotile, Ph.D., Clinical Psychologist, Sotile Psychological Associates
2:00 p.m.	Golf Tournament

Annual Pharmacy Practice Seminar

September 9-10, 2000

Tentative Schedule

Sat., Sept. 9: *Gender Issues in Pharmacotherapy*

7:00 a.m.	Registration, Continental Breakfast, & Exhibits (Breakfast/Exhibits end @ 8 a.m.)
7:55 - 8:00 a.m.	Welcome & Announcements
8:00 - 9:00 a.m.	Benign Prostatic Hypertroph (1 hour), Ed Whiteside, M.D. (Urologist, Wilmington)
9:00 - 10:00 a.m.	Erectile Dysfunction (1 hour), Richard Grunert, M.D. (Green Mountain Urology, Colchester, VT)
10:00 - 11:00 a.m.	Emergency Contraception (1 hour), Tracy Thomason, Pharm.D., Clinical Associate Professor, UNC-CH School of Pharmacy
11:00 a.m. - 12:00 p.m.	Brunch & Exhibits
12:00 - 1:00 p.m.	Drugs in Pregnancy (1 hour), Corey Cuthrell, Pharm.D.
1:00 - 2:00 p.m.	Hormone Replacement Therapy: Breast Cancer Risk/Cardiovascular Risk (1 hour), Lori Bastian, M.D. (Durham VAMC/Duke)

Sun., Sept. 10: *Herbal Medicine: What We Really Know!*

7:30 a.m.	Registration & Continental Breakfast
8:15 - 9:15 a.m.	Popular Herbals: the "good" ones, the "bad" ones! (1 hour) Thomas M. Motyka, D.O., Clinical Assistant Professor of Medicine, UNC-CH, MEDigy Center, Chapel Hill, NC
9:15 - 10:15 a.m.	Herbal Drug Interactions (1 hour), June H. McDermott, M.S., M.B.A., Clinical Assistant Professor, UNC-CH School of Pharmacy
10:15 -10:30 a.m.	Break
10:30 - 12:00	Workshop I (1.5 hours. Choose one workshop from the A - J listing below. NOTE: Workshop A is a 3-hour workshop, from 10:30 a.m. to 1:30 p.m.)
12:00 - 1:30 p.m.	Workshop II (1.5 hours. Choose one workshop from the B - J listing below)

Workshop Topics

A) Laboratory Tests to Monitor Your Patients (NOTE: a 3-hour workshop. Julie ("TJ") Gouveia Pisano, Pharm.D. & Angela Smith, Pharm.D. (DUMC)

B) Natural Products: Men's Health/Women's Health, Debra Burnette, Pharm.D. (Coastal AHEC)

C) Clinical Implications of Drug Interactions: Cytochrome & Alphabet Soup!, Elizabeth Michalets, Pharm.D. (Mission+St. Joseph's Health System)

D) Caring for Your Patients on Anticoagulants, Kim Thrasher, Pharm.D. (Coastal AHEC)

E) Pharmaceutical Care for Your Arthritis Patients, Michelle Fritsch, Pharm.D. (Campbell University; Alamance Regional Medical Center)

F) What's New in HIV Therapy?, John Rublein, Pharm.D. (UNC Hospitals)

G) Compounding in Your Pharmacy Practice - a REIMBURSABLE Service, Tom Oakley, R.Ph. (Rx Solutions [Chapel Hill]; Community Pharmacy Services [Roxboro])

H) How to Optimize Management and Improve Outcomes in the Cholesterol Patient, Philip Rodgers, Pharm.D. (DUMC)

I) An Update on Antimicrobial Therapy, Ralph Raasch, Pharm.D. (UNC-CH School of Pharmacy)

J) Immunizations - a REIMBURSABLE Service, Amy Whitaker, Pharm.D. (Kerr Drug EPCC; UNC-CH School of Pharmacy)

Immunization Certificate Program to be Offered

An Immunization Certificate Program will be offered on September 8-9, 2000 in conjunction with the NCAP Annual Convention and the Pharmacy Practice Seminar. If you are interested in attending and offering on-site immunization services this fall, there are some things that you'll want to do NOW!

- Order influenza and pneumococcal vaccine.
- Begin to establish a collaborative agreement with local physicians.
- Be prepared to partner with local medical practices or health departments.
- Be prepared to complete an 8-hour self-study (videos).
- Be prepared to complete or provide documentation of BCLS/CPR training.
- Look for registration information in the mail.
- Mark your calendar for September 8th and 9th!

For more information call NCAP at 919.967.2237.

Make Your Reservations Now

Convention site hotel space in scenic downtown Wilmington is limited so now is the time to make plans to attend. For your convenience a block of hotel rooms has been reserved at the Wilmington Hilton at reduced rates. To stay at the Hilton call 910.763.5900. A block of rooms has also been reserved at the Coast Line Inn and you can reserve a room there by calling 800.617.7732. Both hotels overlook the beautiful Cape Fear River in the heart of downtown Wilmington. Great shopping and a variety of fabulous restaurants are all within walking distance. **Please make your reservations as soon as possible and be sure to request Pharmacy Convention rates when arranging your travel plans. The cut-off date for reduced rates for both hotels is August 6, 2000.**

Speaker Wayne Sotile Back by Popular Demand

This year's Annual Pharmacy Convention and Practice Seminar in Wilmington will feature one of the most sought-after keynote speakers in America. Wayne Sotile. Ph.D..a pioneer in the field of health psychology. will address the issue of"Stress Management for Busy Pharmacists" on Friday. September 8 at 11:00 am. His presentation at the the Annual Winter Meeting in Greensboro last February was so well received that he has been invited "back by popular demand." Mr. Sotile is a dynamic speaker who has served for twenty years as Director of Psychological Services for the Wake Forest University Cardiac Rehabilitation Program. He has consulted with over 400 organizations. corporations and health care systems and addressed countless audiences on the secrets of stress-resilient individuals. couples. families and businesses. He has authored three ground-breaking books and been featured many times in the international media. This is one speaker you just can't miss.

"Best speaker I've heard in ten years of Carolina Seminars."

"Very helpful to my personal well-being."

-Winter Meeting Attendees

Shop at www.ncpharmacists.org and Raise Funds for NCAP

Now you can generate revenue for NCAP each time you go shopping online. Our new, innovative member benefit program called SupportMyAssociation.com. can be accessed directly from NCAP's web site at www.ncpharmacists.org. By registering as an NCAP member, individuals are given access to over 180 online merchants. Each time you make a purchase NCAP earns a royalty. It's safe, easy and convenient, and members get special deals and promotions plus an exciting array of free online resources.

This innovative network combines the purchasing power of association members from around the country. Don't waste another minute surfing from site to site looking for the best deals. We have already done this for you. Remember, when you shop online, make it count by using SupportMyAssociation.com.

"What we've done," says Adam Weedman, President of SupportMyAssociation.com, "is consolidate the online presence of association members. This in turn increases an individual's purchasing power on the Internet, plus gives the added benefit of creating a new source of non-dues revenue for their respective organization. Both the member and their association benefit from the program." How does this happen? Weedman explains, "Through this consolidation of association memberships, (There are over 135,000 associations in the U.S.) Online merchants see our medium as a great alternative to traditional marketing and promotional expenditures. They'd rather bring value-added offers to association members and pay their associations a royalty, as opposed to paying for electronic or print advertisements that may or may not work. It's viewed as a more efficient way to build a customer base." NCAP members are encouraged to offer the program to their families and/or employees as well.

As an added bonus, all members who register with NCAP's SupportMyAssociation.com area before July 1, 2000 will receive a free SupportMyAssociation.com mouse pad and monitor icon. All registered members will also receive a free e-mail account. If members have any questions about SupportMyAssociation.com they are encouraged to contact the company's Director of Marketing, Cody Young at 800.876.9790 or by email at cody@supportmyassociation.com.

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Wyeth-Ayerst Bowl of Hygeia Award
Criteria for this award are: (1) Licensed to practice pharmacy in NC; (2) Has not previously received the Award; (3) Is not currently serving nor has served within the immediate past two years on its awards committee or as an officer of the Association in other than an ex officio capacity; (4) Has compiled an outstanding record of community service. which. apart from his/her specific identification as a pharmacist. reflects well on the profession.

Presidential Award
To be presented in recognition of outstanding service to NCAP.

Members of the Awards Nominating Committee who will make recommendations to the Board of Directors for the above awards are: Laura Brewer (Nashville), Fred Eckel (Chapel Hill), Gary Glisson (Nashville), Bill Horton (Asheville), and Joe Whitehead (Raleigh) – Chair.

Pharmacist/Technician of the Year
Each of the Practice Forums will honor a Pharmacist/Technician of the Year based on outstanding contributions to the respective discipline (Acute Care, Ambulatory Care, Chronic Care, Technician). Award recipients will be selected by a Committee appointed by the Practice Forum Chair.

NCAP members may nominate members for any of the above awards. Submit to NCAP. 109 Church Street, Chapel Hill. NC 27516 (Phone 800.852.7343; FAX 919.968.9430 or e-mail linda@ncpharmacists.org. **Deadline: July 1, 2000.**

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A Quick Reference for Managing Diabetes

by Nicole Ratliffe Smith

Diabetes mellitus is a chronic disease that places a tremendous burden on patients and society. This disease requires intensive and continuous medical management, as well as ongoing patient education, in order to prevent both acute and chronic complications. Pharmacists, by following the American Diabetes Association Clinical Practice Recommendations, can play an important role in managing patients with diabetes by monitoring therapeutic outcomes and educating patients.

Diabetes mellitus is associated with a significant amount of morbidity and mortality. According to the American Diabetes Association, approximately 15.7 million people in the United States have diabetes.[1-3] This condition is one of the most costly disease states in the United States. The total annual economic cost of diabetes in 1997 was estimated to be $98 billion dollars, which included $44.1 billion in direct medical and treatment costs and $54 billion for indirect costs attributed to disability and mortality.[1-3] Despite the importance of closely managing patients with diabetes in order to decrease the disease's staggering costs, medical management often falls short.

With its complications, including retinopathy, nephropathy, neuropathy, and cardiovascular disease, diabetes is the seventh leading cause of death in the United States (Table 1).[1,4] Two critically important clinical trials prove that tightly controlling glucose levels in patients with diabetes will decrease the complications associated with this disease. The Diabetes Control and Complications Trial (DCCT) established that in type 1 diabetes mellitus, the risk of microvascular complications can be reduced by maintaining blood glucose levels in the normal range with intensive insulin therapy.[5-6] The second trial, the United Kingdom Prospective Diabetes Study (UKPDS), proved that the development of microvascular complications can be reduced when type 2 diabetic patients are treated with sulfonyureas, insulin or metformin.[7-9]

Pharmacists can offer a needed service by managing patients with diabetes in the ambulatory care setting. By following the ADA Clinical Practice Recommendations, pharmacists can evaluate medication therapy, assess concomitant disease states, provide education, set treatment goals, improve patient satisfaction, identify areas where more attention or self-management training is needed, and establish necessary referrals to specialists.[10-11] The Asheville Project, sponsored by the City of Asheville, NC, has proven that patients receiving care from pharmacists for diabetes were highly satisfied with their care.[12] Patients reported a higher quality of life and greater ability to function. In addition, this project has proven cost benefits. Initial data from Asheville suggests the city has saved an estimated $14,000 over the first six months of the program and the total cost of inpatient and outpatient services has declined $20,246 during the 12-month treatment period.[12]

Practice recommendations for the management of diabetes are published yearly by the American Diabetes Association in Diabetes Care in order to help health care practitioners effectively manage patients with diabetes.[11] These guidelines offer in-depth summaries of the evidence for various management recommendations; however, the summaries are exhaustive. In an attempt to make the management of patients with diabetes more uniform, a quick and easy pneumonic device has been developed. This device mimics the practice recommendations while providing the busy health care practitioner a comprehensive "check list" to follow at encounters with diabetic patients (Figure 1). Because diabetes is a complicated disease state, several critically important parameters should be assessed when reviewing patients with diabetes.

Many of the complications of diabetes can be slowed or even prevented through better management by the health care team and the patient. Improved blood glucose control, regular eye examinations, and reduction in cholesterol and blood pressure, are some of the practices that have been unequivocally shown to reduce complications and thereby diminish the heavy personal and financial toll attributed to diabetes. By following the outlined "D-I-A-B-E-T-E-S" list when monitoring patients,

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Table 1: Diabetic Complications[1,4]

Complication	Results
Retinopathy	• 12,000 to 24,000 people per year lose their sight because of diabetes • Diabetes is the leading cause of new blindness in people 20-74 years of age
Nephropathy	• Approximately 10 to 21% of all patients with diabetes develop kidney disease • Diabetic nephropathy is the most common cause of end-stage renal disease requiring dialysis or a kidney transplant
Neuropathy	• Approximately 60-70% of patients with diabetes have mild to severe forms of neuropathy • Diabetes is the most frequent cause of non-traumatic lower limb amputations • Impotence due to diabetic neuropathy afflicts approximately 13% of men who have type 1 diabetes and 8% of men who have type 2 diabetes
Cardiovascular Disease	• Patients with diabetes are 2 to 4 times more likely to have heart disease • Cardiovascular disease death rates are also 2 to 4 times higher in adult patients with diabetes than in adults without diabetes • Adults with diabetes are 2 to 4 times more likely to suffer a stroke

Figure 1: Diabetes Quick Reference

Clinical Practice Recommendations for the Management of Diabetes Mellitus – A Quick Guide During Patient Encounters

D	**Diagnosis** [2-3]	1. Casual glucose > 200mg/dL, or 2. FPG > 126 mg/dL, or 3. 2 hr PG > 200 mg/dL during an OGTT Each of these tests must be confirmed, on a subsequent day, by any one of the three methods listed
I	**Insulin vs. Oral Therapy** [4]	1. Nonpharmacologic Therapy – meal planning and physical activity 2. Monotherapy with Oral Agents – Alpha-glucosidase inhibitor, biguanide, insulin, meglitinide, sulfonylurea, thiazolidinedione 3. Combination of Oral Agents 4. Combination of Oral Agents + Insulin 5. Insulins –Regular, Semilente, NPH, Lente, Ultralente, 70/30, Lispro, Continuous Insulin Infusion Pump
A	**Atherosclerosis/ Lipids** [10,13]	**Lipid Goals** Cholesterol < 200 mg/dL LDL-C < 100mg/dL HDL-C > 35 (men) & > 45 (women) TG < 200 mg/dL
B	**BP/BG Control** [4,10,14]	**Blood Pressure Goals (mmHg)** Systolic < 130 Diastolic < 85 Note: ASA therapy should be considered in DM patients > 30 yo.[1] **Blood Glucose Goals (mg/dL)**[f] Avg. Fasting BG 80 – 120 Avg. Bedtime BG 100 – 140 HbA1c < 7%
E	**Exams** [10,15-16]	1. **Dilated Eye Exam** Yearly by an ophthalmologist or optometrist 2. **Comprehensive Foot Exam** At least yearly, and more often in patients with high-risk foot conditions 3. **Dental Exam** Every 6 months
T	**Tests/ Procedures** [10, 17-18]	1. **HbA1c (glycated hemoglobin)** Quarterly if treatment changes or not meeting goals At least 2 times/year if stable 2. **Urinalysis for Protein** Yearly 3. **Microalbumin Measurement** Yearly if urinalysis is negative for protein 4. **Influenza Vaccine** Yearly, beginning each September in patients > 6 months of age
E	**Eating/Nutrition** [19]	1. **Nutritional Goals:** Provide regular meal planning advice 2. Balance food intake with drug therapy and exercise 3. Maintain reasonable weight by monitoring calorie consumption (BMI < 27 Kg/m^2) 4. Food Intake Breakdown 10-20% of calories from protein < 30% from fats (< 10% saturated fats) < 55% of calories from carbohydrates < 300 mg cholesterol per day
S	**Self Management/ Smoking Cessation** [10, 20]	1. **Signs and Symptoms of Hyperglycemia:** Polyuria, polydipsia, polyphagia, blurred vision, drowsiness, nausea 2. **Signs and Symptoms of Hypoglycemia:** Anxiousness, sweating, dizziness, irritable, tachycardia, weakness/fatigue 3. **Blood Glucose Monitoring:** Check BG every morning At least 3 times per week, check BG just before a meal and 1-2 hours after that meal 4. **Smoking Cessation:** Routine smoking cessation counseling should be provided

ϕ Because laboratory methods measure plasma glucose, many blood glucose monitors approved for home use and some test strips now calibrate blood glucose readings to plasma values. Plasma glucose values are 10–15% higher than whole blood glucose values, and it is crucial that people with diabetes know whether their monitor and strips provide whole blood or plasma results.

Continued from page 10

pharmacists can begin to take an active and comprehensive role in the management of diabetes in the ambulatory setting. Continual follow-up and close supervision of these patients may improve overall diabetes care, reduce diabetic complications and decrease the economic burden of this disease on overall health care costs. ❖

About the Author...

Nicole Ratliffe Smith is employed at Eli Lilly & Company in Indianapolis, IN.

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UNC Hospitals' Pharmacy Diabetes Care Project: *"Walking the Pharmaceutical Care Walk"*

Diabetes mellitus is a disease that affects 15.7 million individuals in the United States.[1] An estimated $90 billion is spent each year on the direct and indirect costs of diabetes.[2] Despite the wealth of evidence available documenting improved patient outcomes with control of blood glucose, 35 to 38% of patients with diabetes are poorly controlled (hemoglobin A1c (HbA1c) >8%).[3]

Due to the large number of patients with diabetes mellitus, costs associated with this disease, and scientific data documenting reduced morbidity and mortality with intensive blood glucose control and preventive care, the Pharmacy Diabetes Care Project (PDCP) was initiated at UNC Hospitals in September 1999. This project was funded by a grant from UNC Physicians and Associates. This referral-based case management Project partners two pharmacists with Internal Medicine physicians at the Ambulatory Care Center to customize therapeutic goals, drug therapy, education, monitoring, and preventive care for indigent patients with poorly controlled diabetes.

by Betsy Bryant, Robb Malone & Betty Dennis

The objectives for the PDCP are to improve the quality and decrease the cost of care. The PDCP team provides intensive patient follow-up between scheduled primary care provider appointments; strives to improve patient knowledge through disease state, self-care and medication education; and seeks to facilitate patient access to health care services and medications without increasing the number of patient visits. Targeted patients include those with a HbA1c greater than or equal to 9%, new diagnosis of diabetes mellitus, multiple medication issues, non-adherence with therapy and/or those frequently utilizing Emergency Department or Urgent Care Clinic resources.

The addition of pharmacists to the clinical management of patients assists in improving patient outcomes through intense follow-up and collaborative medication management. Initial patient assessment by the pharmacist includes patient interviews with emphasis on blood glucose monitoring, foot care, nutrition/exercise habits, social/family issues, sexual issues, medication needs and evaluation of lab data. During the follow-up period, patients receive disease-state education tailored to meet their individual needs, i.e. patient literacy, disability, and/or patient adherence. The goal of the educational intervention is to improve patient self-care and problem-solving skills, which are essential to achieve optimal diabetes control. Follow-up phone calls every few weeks allow for more frequent assessments, therapeutic adjustments, and identification of therapeutic dilemmas that may be resolved without further utilization of hospital resources. Medication adjustments are carried out through discussions with the primary care provider or utilization of standing orders (i.e. metformin titration) developed by the PDCP. Although the primary goal of the PDCP is diabetes mellitus management, the clinical pharmacist also addresses psychosocial issues, comorbid conditions, and serves as a liaison with ambulatory care pharmacists. Primary outcomes include HbA1c and disease-state knowledge scores. Current literature suggests that a relative decrease in HbA1c of 10% will result in a 40% reduction in retinopathy, nephropathy, and neuropathy.[4] Currently 220 patients are enrolled in the Project. The PDCP data show a 17% relative reduction in the average HbA1c after eight months of project enrollment. Secondary outcomes measured include LDL, Total Cholesterol to HDL ratio, systolic blood pressure, and the number and costs associated with Emergency Department/Urgent Care visits. After attainment of initial objectives, expansion of the PDCP will include evaluation of cost-effectiveness and initiation of billing for pharmaceutical care services. ❖

About the Authors...

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Betty Dennis, Pharm.D., MS, FASHP, is a Clinical Specialist in Ambulatory Care and Co-Director of the Pharmacy Diabetes Care Project at UNC Hospitals. She may be reached at bdennis@unch.unc.edu.

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Tech Meeting a Groundbreaking Success

by Dorothy Cowan & Sandra Smith

The first NCAP Technician Practice Forum Meeting, held May 8, 2000 in Greensboro, was a groundbreaking success. Most Technicians in attendance were certified and everyone brought their views to the table when small groups were formed to discuss the following questions:

Educational Council
What should NCAP's role be in providing CE for technicians and preparing technicians for the certification exam?

- meet specific CE needs for technicians
- provide affordable full day CE programs
- programs should serve techs in diverse practice sites such as community, hospital, and long-term care

Incentive for Technicians to Want to Grow
- educate employers on the value of certified technicians to promote increased salaries
- offer affordable certification preparation and training programs

Professional Relations Council
How can the publics awareness of Technicians be raised?

- educate high school students about pharmacy technician role
- increase awareness in community colleges to provide more technician training programs
- educate pharmacist about the need for good technicians and to value them as a team player
- make certification an incentive for all pharmacy supportive personnel

Community College Programs
What is NCAP's role in increasing the number of community college programs and the number of students enrolled?

- regional meetings that promote opportunity for techs through community colleges and local associations
- marketing community college programs (journal, website)
- pharmacist members promote technician training opportunities
- develop technician section of website to highlight technician accomplishment

Membership and Marketing Council
How can NCAP technician membership be increased?

- provide technician networking opportunities
- NCAP member pay same fee whether preregistered or register at the door
- technician role should be discussed in pharmacy school to gain support of future pharmacist
- promote technician interest in certification
- ensure technicians are aware of NCAP membership opportunities
- support pharmacists to encourage technicians to become involved and certified
- NCAP should market technicians as a profession
- advertise availability of local meetings and CE's to technicians
- more meetings and associations throughout all of North Carolina

Top 5 Benefits of Increased Membership
- support for technicians
- CE's and better information for technicians
- increased recognition of technicians
- equal opportunities in organization
- opportunity to be part of the program and more involved on committees

Legal & Public Affairs Council
Should technicians be registered with the NC Board of Pharmacy?
Yes, and all technicians should be certified by PTCB.

- transition from state technician organization to NCAP Technician Practice Forum
- form the technician practice forum board using existing organization
- combine membership of local technician organizations and have elections for Technician Practice Forum positions
- current state organization president ex-officer on council and appoint additional technician for each current NCAP council
- have September state technician meeting be the NCAP Technician Practice Forum meeting working with GAHEC
- combine or link website and have e-mail newsletter for all technicians.

All the ideas for each group were brought to the floor for discussion and most were in agreement that there should be a one year grace period for technicians to become certified after any proposed legislation for 2001 passes. It was also agreed that there should be no grandfathering of technicians without taking the certification board. Another of the major concerns was that the pharmacists and technicians work together as a team for the good of the population. At the top of the list were concerns for Continuing Education for technicians as well as pharmacists and salary adjustments for certified technicians to help peak the interest in becoming certified even before it becomes mandatory.

Pharmacy as a whole needs to support technicians and promote certification. This would lead to a positive growth outlook on Pharmacy Technicians as a profession, which supports patient care.

A special thanks goes out to those pharmacists who actively supported their technicians in attending this meeting. The ultimate goal is to advance the entire pharmacy profession and provide quality and improved patient care. ❖

About the Authors...

Dorothy Cowan, CPhT and Sandra Smith, CPhT are employed at Onslow Memorial Hospital in Jacksonville, North Carolina. They can be reached at 910.577.2390.

Schering Report Explores How Internet is Changing Pharmacy

KENILWORTH, NJ - The purchasing of prescriptions and other healthcare products via the Internet is still in its infancy, but is destined to grow rapidly. Although only 2% of patients now order such items over the Web, online pharmacy sales are expected to reach $20-$25 billion within the next four years, compared to $1.9 billion in 1999.

These were among the findings of Schering Report XXII, entitled "Pharmacy.com: A Virtual Reality," which explores the Internet's effect on the practice of pharmacy.

Based on 1,000 telephone interviews across the U.S. with pharmacists, physicians, and members of the general public, the Report said that 83% of consumers who have already purchased prescriptions online, and 72% of those ordering OTCs by that method expect to continue doing so. About one-third of those queried in the general population anticipated using online pharmacy in the near future.

Projecting that some 125 million Americans would be on the Internet in the next few years, the Report asserted that this would translate into another 41 million online pharmacy customers.

The independent study, initiated and commissioned by Schering Laboratories, is the latest in a series of annual investigations of issues and trends that impact on pharmacy. It is the 22nd consecutive Report, as suggested by its title.

Schering Report XXII carefully defined the two types of pharmacies that currently exist in cyberspace: the pure-play pharmacy, and the clicks-and-mortar variety. Those characterized as pure-play have no physical presence outside of the Internet; they exist purely in cyberspace. Pharmacies described as clicks-and-mortar have at least one physical storefront, together with an Internet presence through which patients may contact them.

"In many ways," said the Report, "the Internet is the great equalizer, as huge chains and small independents can have the same appearance online." By this reasoning, the tiniest store may look as impressive as a large chain.

Enlarging on this point, the researchers emphasized that owners of independent drug stores have much to gain by establishing a web site. They can bolster relationships with customers in the community by providing the convenience of online ordering, while maintaining their ability to provide personal service. Furthermore, exposure on the Internet gives independents an opportunity to gain additional customers, and to be more competitive with area chains.

The click-and-mortar pharmacy is the more common model at present, the Report found, and appears to add value to traditional practice. It quickly added that "pure-play models can also thrive, bolstered by adequate and strategic partnering."

While the survey uncovered some assumed disadvantages of online pharmaceutical purchasing by consumers, most of those objections were not borne out upon questioning people who had actually utilized the Internet.

It was assumed, for example, that (a) the Internet is too

Continued on page 22

Pharmacists Address Emergency Preparedness

In a geographic area prone to hurricanes, tornadoes, fires, floods and now even subject to tsunamis, pharmacists increasingly must take responsibility to prepare for natural disaster and calamities that may impact services for varying time increments. On April 29, pharmacists from some 14 counties met in Chapel Hill for a workshop addressing, "Community Pharmacist Disaster Response and Recovery." Jointly sponsored by the UNC Schools of Pharmacy and Public Health, the Guild of Public Health Pharmacists, North Carolina Primary Health Care Association and the North Carolina Association of Pharmacists, the program brought together a wide variety of Federal and state pharmacists and other professionals experienced in disaster response and recovery.

by Steven R. Moore

After an initial description of military structure within a field setting, the program opened with a complete overview of the 1999 hurricane season and all of its impacts through the current time, as presented by the NC Division of Emergency Management. This presentation was followed with explanations of Federal structure and process for emergency response and the Federal Response Plan, including a description of the Disaster Medical Assistance Teams (i.e. SORT in this state). The structure of the state response capability was presented with an overview of the NC National Guard and its past and continuing involvement in disasters. The morning concluded with an overview of the laws and NC Board of Pharmacy regulations impacting pharmacists during emergency situations.

All participants were treated to field simulation MRE's (meals ready to eat) for lunch before embarking on the afternoon session. The afternoon presented a full array of issues related to providing pharmacy services in a field or emergency setting. The opening speaker dealt with the structure, organization, preparation, management and maintenance of a field dispensing pharmacy in a disaster or emergency setting. Participants were then given the system, structure and legal parameters for therapeutic substitution within an emergency setting. This was followed by the considerations for establishing a formulary within this field setting (with several existing emergency formularies used as standards). This presentation also included an overview of the UNC School of Pharmacy's hotline and drug donations effort to assist the recent flood effort. The final presentation addressed the cultural competency and minority or special population components that may be encountered in the emergency field setting.

Additionally, all participants were provided a 400 page reference manual that included the only existing curriculum in "Pharmacy Emergency Response." The reference manual also included various appendices related to a whole range of concerns and technical issues that may occur in a disaster setting. Most tied into websites and internet access points for ongoing updates, including a prototype pharmacy disaster plan developed by a pharmacist impacted by the recent floods.

At the end of the day several matters were obvious. There currently exists no state plan or structure to address pharmaceutical services during a disaster or natural emergency. Government plans simply do not concern themselves with pharmacy services. There is no standard formulary that would function in this situation and no structural integrity or entity to make sure that patients get the medications they need. Indeed, as it stands now, local pharmacists are basically on their own in case of a natural disaster. Even when the Federal and state officials intervene, there should be no expectation that services or support is designed or tailored for their benefit. Pharmacists also remain rather uninformed about disaster response and appear to have limited interest in learning more.

The one legal structure that exists are the laws and regulations of the Board of Pharmacy that govern emergency or disaster situations. A reminder - by regulation in North Carolina - all pharmacists must have a plan to safeguard prescription records and pharmaceuticals in the event of a natural disaster and must also have an auxiliary system for records if the automated data processing system is inoperative for any reason (including power disruptions or other natural disasters).

Natural disasters and emergencies will continue to occur in North Carolina. Pharmacists will be impacted both as health care professionals providing direct and vital health care and as residents of impacted areas. At this time, they remain almost totally independent in responding to such emergencies, on their own to return to operation and without guidelines or systems to aid them in their response, operation or recovery. This challenge of the future remains an unmet need in pharmacy practice in North Carolina. ❖

About the Author...
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Practice Profile

Nalle Pharmacy Provides Specialty Services

Briefly describe your overall practice.

The Nalle Pharmacy is an independent pharmacy in an eight-story multi-disciplinary clinic. The Nalle Clinic was a 79-year old multi-specialty clinic that at its peak was the largest practice in Charlotte, growing to 140 physicians and 10 satellites. Unfortunately, due to compensation cutbacks placed on physicians by managed care, the institution recently transitioned from one single organization to multiple medical practices of different affiliations.

What unique services do you provide?

Our building houses specialists in dermatology, reproductive endocrinology, radiology, oncology, family practice, urgent care, as well as others. To meet the needs of this plethora of practices, The Nalle Pharmacy provides specialty services such as

- compounding a variety of preparations for dermatological needs,
- dispensing of an array of fertility drugs,
- counseling of every patient who receives a new prescription,
- submission to Medicare of required reimbursement forms for diabetic supplies, chemotherapy, and immunosuppressant drugs,
- dispensing of specialized infectious disease drugs,
- dispensing and filing of forms of the specialized drugs Clozaril and Thalomid, and
- providing of personal disease-state programs for asthma and hypertension patients.

How did you determine the need for these services and develop your practice to meet these needs?

Most of our services were developed to meet the evolving needs of the in-house specialists. Pharmacy Director Tommy Dagenhart and pharmacist Carla Ferrara have done an excellent job in keeping the pharmacy current with the changing times. Our disease-state programs were designed to meet the demands of the changing role of the pharmacist from medication dispenser to medication/disease state educator.

The Cuff Club is a program we provide to achieve a maximum level of disease-state control in our blood pressure patients. Parke-Davis provides The Nalle Pharmacy with blood pressure monitors to be issued to hypertension patients in exchange for attending monthly 30-minute Cuff Club sessions with Lori W. Ulrich. Community doctors refer the majority of patients to the Cuff Club; however, we do accept patients who come to us on their own accord. During these sessions, Ulrich instructs the patient on how to use their monitor and educates the patient on the purpose of their medication regimen, the definition and complications related to hypertension, diet modification, sodium reduction, exercise initiation, the importance of medication and lifestyle compliance, etc. The patient brings a log of their blood pressure readings to each visit for discussion and encouragement. After every visit, Ulrich submits a written SOAP note to each patient's physician or contacts them verbally if necessary.

Are you being reimbursed for the services you provide?

Currently, we are not filing for reimbursement. The Cuff Club was a pilot program to see how such a service would be welcomed in our setting. Now that we know what success can be achieved by such a program, we plan to set the wheels in motion for implementing a reimbursement protocol. We do require our patients to fill their hypertension medications at our pharmacy, which generates revenue.

At present, Ulrich is enrolled in the Asthma Certification Program. Once she receives her certificate, we will begin billing for asthma education services as well.

We are receiving reimbursement for diabetic supplies, chemotherapy, and immunosuppressant drugs submitted to Medicare.

What lessons have you learned as a result of this experience?

1. Specialty services create a large volume of patients due to physician referral to our pharmacy. Physicians often express that their patients save time and money by filling their prescriptions at our location. They reinforce to their patients our willingness and ability to provide such services.
2. Success comes from having an open mind. When there is a demand for a service, documentation of the initial interaction and provision of that service makes future provision of that service much easier.
3. Adequate staffing, enthusiastic pharmacists, and a visualistic director make for smoother transitions in an constantly changing career.

What were your stumbling blocks?

Stumbling blocks have been at a minimum. With Dagenhart having built upon relationships with Nalle physicians over 27 years, the pharmacy staff has enjoyed the opportunity to be looked upon by the medical staff as a value to their patient care. The primary care physicians have complimented the Cuff Club Program and have made numerous comments regarding improved disease-state control.

Where are you heading now with your practice?

We are heading towards a future of more disease-state programs, collecting reimbursement for cognitive services, and strengthening The Nalle Pharmacy's relationship with community doctors, while continuing the provision of specialty services or possibly expanding them if need be. ❖

Primary Pharmacotherapeutic Care Clinic

PURPOSE:
This study describes the collaborative role of the clinical pharmacy specialist (CPS) and the physician in a primary care clinic. This role expands those previously described of the CPS in primary care clinics. The CPS becomes the primary provider of care for the referred disease state (s) and is privileged to prescribe from the medical center formulary without use of protocols or countersignature.

METHODS:
Primary care providers refer patients with 1) one or more diseases (hypertension, diabetes, hyperlipidemia, etc) and/or multiple drug therapy; 2) patients not reaching published goal with conventional pharmacological management; 3) patients experiencing adverse drug effects; and 4) patients needing narcotic analgesic withdrawal and nonnarcotic pain management. The CPS provides independent management of the patient including modifying and initiating pharmacotherapy. The CPS schedules follow-up appointments and necessary tests to evaluate success of therapy.

RESULTS:
Chronic pain management: patients receiving chronic narcotics decreased 50% by the end of the first 12 months. Of the remaining patients, 50% decreased their daily narcotic requirements. Hypertension: 100% patients met goal. Pharmacological requirements decreased by at least one drug in 65% of patients. Diabetes: 60% had measured improvement (decrease in HgbA1c).

CONCLUSION:
The CPS provides the ideal extension of the physician in the primary care clinic in the management of chronic disease states. The CPS provides current standard of care for the patient in the most cost-effective manner for the medical center.

This abstract was accepted for presentation at the American College of Clinical Pharmacy 2000 Spring Practice and Research Forum , April 2-5, 2000, Monterey, CA

About the Authors...

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Henry M. Bellamy was ACOS for Primary Care at the beginning of the study and retired as COS of the Department of Veterans Affairs, Salisbury, NC

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NCAP Member to Run for APhA Office

As a member of NCAP, I would like to ask for your support in my running for office in the Administrative Practice Section of the APhA-Academy of Pharmacy Practice and Management.

In 1997, I was responsible for the introduction, and later passage into law, North Carolina legislation, HB-906. This law made it possible for the Board of Pharmacy to help fund an impaired pharmacist program. In 1999, I again went to the legislation and helped passed HB-948 which further expanded the original impaired pharmacist legislation. As a result of HB-948, there is immunity from civil lawsuit for anyone acting in good faith on behalf of the impaired pharmacist program, as well as protection of clients files from being subpoenaed in a civil suit. The experience of drafting two pieces of legislation, and lobbying to get that legislation passed I think would be a valuable asset to APhA.

As someone who had practiced in three major sections of pharmacy, retail, hospital, and long-term care, I believe I can appreciate the concerns of most pharmacists in a variety of settings. In my current position, I see first-hand the damage that is being done to the lives of our colleagues as a result of poor working conditions.

I would therefore like to take my experiences as a grassroots lobbyist and activist, and apply them to other areas that are currently affecting the profession of pharmacy. This year's elections will limit you to vote only in the section to which you are registered. If you would like to check or change your section registration, you can call APhA and speak to the membership department at 800-237-2742. Thank you for your support.

David Marley, PharmD.
Executive Director
North Carolina Pharmacist Recovery Network, Inc.

Campbell University Develops Wellness Institute

The Campbell University School of Pharmacy has taken a giant step in pharmaceutical education by developing a Wellness Institute, made possible by an endowment from Dr. Joseph W. Baggett. The primary goal of this initiative is to better educate consumers regarding health issues and inspire health care providers to encourage patients to be more proactive in their health care.

The institute will have three distinct components that will affect middle schools, the general population, and health care professionals in close proximity to the Campbell University campus in Harnett County. The three major components will include: 1) middle school student education, 2) consumer education, and 3) education of healthcare professionals.

Phase I (during 2000) will expand middle school education to include prevention and treatment of disease states. Phase II (during 2001) will launch the consumer education component of the institute. Phase III (during 2002) will initiate the Annual Dr. Joseph W. Baggett Healthcare Enhancement Seminar that will bring state, national, and international healthcare educators to the campus with cutting-edge information for healthcare providers in the region. ❖

Continued from page 15

impersonal a method for receiving medication, because there is little opportunity for being counseled by a pharmacist; (b) online pharmacies without standard bricks-and-mortar outlets would have trouble obtaining reimbursement from insurers or managed care plans; (c) privacy-sensitive patients would be loathe to give personal health information to an anonymous electronic entity; and (d) patients would not tolerate waiting 3-5 days for delivery, along with the payment of shipping charges.

The Report commented on some of these assumed negatives as follows: "Ordering prescriptions online was judged to be easy, convenient and fast by those who have done so – and without any loss of privacy.

"Privacy and delivery speed were rated as excellent or very good by the majority of purchasers.

"Reimbursement was also deemed excellent or very good by 47% of buyers. The lack of ready availability of a pharmacist was borne out, however, as just 35% of buyers were very satisfied with the pharmacist's availability on line." Most respondents, in fact, indicated that adequate information on drug interactions was lacking online.

But definite advantages of online prescription ordering emerged in the study: Some 71% of respondents said that the online channel was very convenient, and 67% found it a desirable way to order refills. The availability of clear usage instructions was noted by 64%. Most patients liked the channel's round-the-clock availability for placing orders. They also liked the delivery of medications direct to their doorstep.

Despite the low-price claims made by Internet pharmacies, the majority of patients queried found that prices were not significantly lower than those charged in community drug stores. When patients who had made online purchases of either Rx's or OTCs were asked what situations might cause them to use an online pharmacy again, the most common responses were: price, long lines at the drug store, the need to pick up medications rather than have them delivered, and poor rapport with their community pharmacist.

Analyzing the comparative merits of the pure-play model and the clicks-and-mortar model, the study awarded the laurel to the latter. It pointed out the pure-play pharmacy has the advantage of low overhead and is potentially more efficient. However, the clicks and mortar pharmacy enjoys many positives: "It can provide better drug reimbursement through existing contracts. It has brand recognition, and a greater degree of flexibility in ordering, dispensing, and providing information online or in person. And it has an existing base of clients, and therefore revenue." ❖

Pharmacists may obtain a free copy of Schering Report XXII by contacting Dr. Sherlyn Tronco, Manager, Pharmacy Development, Schering Laboratories at 908.298.5496.

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North Carolina Pharmacist

Volume 80, Number 4 ...applying drug knowledge to improve health July/August 2000

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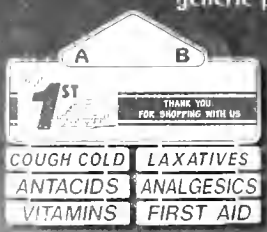

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North Carolina Pharmacist

Volume 80, Number 4 ...*applying drug knowledge to improve health* July/August 2000

Inside

Daniel G. Garrett
Executive Director

Voice & Vision

Bearing Fruit

"North Carolina Pharmacy is sure organized in its lobbying efforts," a pharmaceutical company representative told me recently. He stated that he had just attended a meeting of PhARMA company lobbyists and they had been discussing the status of pharmacy related legislation in the southeastern states and that North Carolina Pharmacy seemed to have the most cohesive legislative effort. This is a dramatic change in the way we were viewed two years ago. What is the difference? A unified voice.

NCAP is only six months old and we are already seeing the fruits of the effort to establish one voice-one vision for our profession. The recent short session of the North Carolina Legislature brought a huge challenge to pharmacy. As a result of significant financial losses in the state employees' health plan, the new director of the plan proposed slashing the reimbursement of pharmacists to the lowest contract rates possible. Pharmacy lobbyists representing NCAP, chains, and independents came together and developed a strategy that eventually maintained reasonable dispensing fees and opened the door for pilot programs for pharmacists to be reimbursed for disease management. This was a fast moving legislative session and the state health plan was dealt with as a leadership issue in the General Assembly. A few key legislators were going to make the decision and we needed to focus our efforts on them. North Carolina pharmacists should be thankful for the effective lobbying efforts of Mike James, Jimmy Jackson and Mark Gregory. These NCAP members led the way and carried one voice for pharmacy.

The future of our success in the legislature will depend on focused initiatives and positive relationships with members of the General Assembly. The Legal and Public Affairs Council is laying the groundwork for a proposed bill for the 2001 long session that will recognize the increased role of pharmacy technicians. The RPh PAC is actively seeking your support for targeted contributions in this year's fall elections. Please do your part by providing input as the technician bill is drafted, and please don't forget to provide generous financial support to the RPh PAC.

NCAP has been very active on many other fronts and here are a few of the accomplishments that we have achieved:

- Presented leadership workshops for emerging pharmacy leaders at the Speedway Club in Charlotte and the Aqueduct Conference Center in Chapel Hill
- Conducted focus groups in Asheville for people with diabetes and pharmacists who provide diabetes care in conjunction with the National Institutes of Health
- Completed work to develop the Diabetes Community Health Project Tool Kit
- Helped Medical Review of North Carolina present workshops on standing order protocols for flu and pneumococcal immunizations in Charlotte, Greenville and Cary
- Coordinated meetings with WellPath and NCAP members on pharmacy relations, handheld prescribing technology and disease management by pharmacists for asthma and anti-coagulation
- Worked with residency program leaders to plan a meeting of all pharmacy residents in our state
- Established the NCAP website as a premier source of information for our members with links to drug information on the internet
- Distributed consumer information, in cooperation with the Governor's Task Force, to pharmacies across the state concerning the prevention of stroke and heart disease

Evidence of our success is noticeable by the national exposure and interest that North Carolina is experiencing. Central Pharmacy of Durham was featured in the journal *Community Pharmacist*, and Jennifer Burch's picture was on the cover. The innovative practice of Penny Shelton in Raleigh was featured in the journal *Consultant Pharmacist*. The NCAP office has received calls from at least five other states to find out more about our unification process. North Carolina pharmacy efforts on collaborative practice will be showcased at the District III NABP-AACP meeting in Asheville. NCAP staff has had inquiries from other state associations about our innovative approaches to our website and member communications.

NCAP membership, leadership and staff are drawing together on efforts to advance pharmacy practice on a continual basis. There are many opportunities for involvement and we encourage you to participate. On August 21 the Triangle College of Clinical Pharmacy will be presenting a program on collaborative practice at the Friday Center in Chapel Hill. This meeting is open to everyone and information can be found on the NCAP website. The best way to find out about what NCAP is doing for you is to attend the Annual Convention and Pharmacy Practice Seminar in Wilmington, September 7-10. NCAP, UNC and the Coastal AHEC have combined forces to put together a program with national and state speakers on topics that will meet the diverse interests of our members. Most importantly, this meeting will give you the chance to network with your colleagues and provide NCAP with input on how we can better serve you.

One voice - one vision is bearing fruit. Please share your time, talent and financial support and we will reap even greater benefits for the pharmacy profession and your patients.

Dan Garrett can be reached at dan@ncpharmacists.org or 800.852.7343.

North Carolina Association of Pharmacists
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phone (919) 967-2237
fax (919) 968-9430

Kevin L. Almond
President, NCAP

Fellow Pharmacists,

As you are well aware, pharmacy is garnering a lot of attention in the United States today. Prescription medications switching to over-the-counter status was big news for a while, but is now simmering on the back burner. The high cost of prescriptions and their annual or biannual price increases always find an opportunity to make the evening news, overdramatizing some isolated case where a patient cannot find the resources to purchase a rare drug for a rare disease. Most recently, the national focus has been a political one—Medicare coverage for prescription drugs. At the state level, the health care portion of the budget needs to decrease, and pharmaceutical reimbursement is laying on the chopping block.

Political candidates everywhere are espousing great plans for the elderly. Many of these candidates are not even in a position to affect legislation for prescription coverage for the elderly. I would hazard a guess that 99% of the candidates know very little about pharmacy or pharmaceuticals. In fact, those lawmakers who are on prescription medication most likely do not even visit the pharmacy themselves, but have someone else pick up their prescriptions after flashing their drug card and paying a very low co-payment. What they do know, however, is that the elderly are a larger and larger portion of the voting population, and that population cares about drug coverage; therefore the politicians care.

Given the attention that pharmacy is receiving, and the important policy decisions currently under consideration, pharmacists everywhere need to become educators. We have to get out of the hospital pharmacy, get out from behind the counter, and get out from behind the patient charts and let the general population and legislators know about the services that pharmacists provide. To legislators, though we may be the gatekeepers (obstacles) to pharmaceutical access, we are a voting constituency that needs to be heard, and our lawmakers need to get real facts about what we do. To the elderly, it may seem like we're "robbing" them with high-priced prescriptions, but they need to understand how we increase adherence, improve quality of life, or lengthen life.

To lawmakers the message is clear: the costs on the front end of health care, in the form of adequate prescription coverage, reduces the cost on the back end—hospitalizations, surgeries, emergency room visits, etc. Pick your poison, but you cannot avoid both, despite what the public wants. Decreased reimbursement will likely result in high prescription volume per pharmacist, resulting in higher error rate by pharmacists. Besides, with the average prescription cost in the mid-$40 range, only 10% goes to the pharmacy; the rest pays for the product. Poor reimbursement policies only result in a 3 to 4 percent reduction in cost to the patient, while the cost of product to the pharmacy remains the same or increases.

Our job with respect to the public is clear. We must provide the best service to patients, thereby making our services invaluable. If the patient sees the value of our services, they won't be likely to let the government take away something they have become dependent on. History has proven that the public can create a ruckus when the government takes away something they perceive is rightfully theirs. Poor reimbursement will limit access for the patient and reduce pharmaceutical care.

If you have not yet begun doing so, now is the time to tell pharmacy's story. Whether at lunch, dinner, meetings, etc. the public needs to know what we do, and we, not the media, need to tell the story.

Sincerely,
Kevin Lee Almond, RPh

...applying drug knowledge to improve health

Getting Connected: Information You Need is Just A Click Away

Looking for the latest drug information? Want to know more about upcoming NCAP events? Maybe you want to explore new job opportunities or network with fellow pharmacists. You're in luck. All of this information is just one click away at www.ncpharmacists.org.

The internet has become a vital tool for pharmacy professionals seeking quick answers, and NCAP Website is keeping pace with this demand by providing a wellspring of information. Visitors to the site will find such things as:

- A Meetings & Events calendar.
- A members only Networking Center which houses a directory of all licensed pharmacists in the state.
- An Education & Training area that includes CE Schedules, Online CE, and a list of Residency Programs.
- A Legal & Public Affairs section containing legislative updates and government contacts.
- Website Classifieds listing employment opportunities and a variety of services.
- A Governance area which includes Local Association information, Practice Forums and contacts.
- There is also an extensive Links Section which serves as a portal to the internet for those seeking medication information and professional contacts. NCAP has catalogued these links as a service to our members. They are contained in the Links Section of our site and indexed as follows:

NCAP Website Link Index

1. **Disease and Health-Related Information Sites**
   - AIDS
   - Asthma
   - Diabetes
   - Disease Advocacy Organizations
   - ENT
   - Family Health & Home Care
   - General
   - Heart & Vascular
   - Medical Errors & Safety
   - Migraine
   - Mental Health
   - Oncology
   - Pediatrics
   - Woman's Health
2. **Travel & Immunizations**
3. **Drug Information**
   - Evidence-Based Medicine
   - Pharmacogenetics
   - General Resources
   - OTC and Consumer Information
4. **Clinical Research & Drug Trials**
   - Drug Trials
   - Recently Approved Drugs
5. **Education & Library Services**
   - Schools of Pharmacy
   - Other Educational Links
   - Library Services
   - E-Journals
6. **Herbal & Alternative Medicine**
7. **Boards & Accreditation**
8. **Government Sites**
   - Federal
   - State
9. **Pharmacy Associations**
   - International
   - National
   - North Carolina
   - Other States
10. **Pharmaceutical Manufacturers**

Not only does the website provide valuable information, it also offers something special for those who like to shop. Now you can generate revenue for NCAP each time you go shopping online. Our new, innovative member benefit program called SupportMyAssociation.com can be accessed directly from the front page of the NCAP Website. By registering as an NCAP member, individuals are given access to over 180 popular online merchants. Each time you make a purchase NCAP earns a royalty. It's safe, easy and convenient, so don't waste time surfing for the best deal, NCAP has already done this for you. Remember, when you shop online, make it count by using SupportMyAssociation.com. ❖

Consumer Use Of Internet As Source For Medication Information Grows

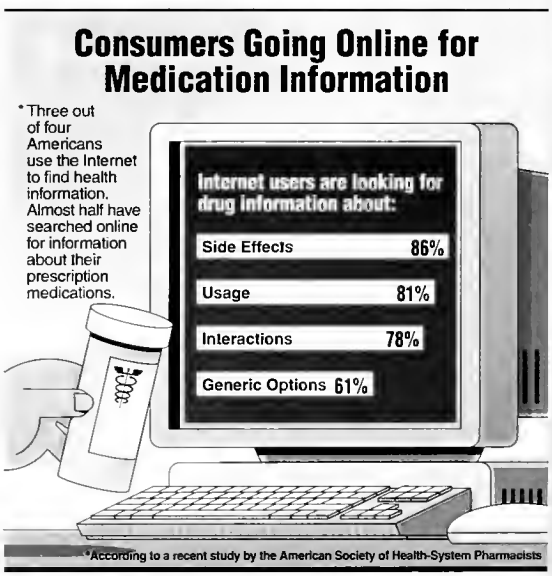
Consumers interested in obtaining accurate, up-to-date information about their medications are increasingly turning to the Internet to do their research, according to a recent survey by the American Society of Health-System Pharmacists (ASHP).

Acute Care

Three out of four (76 percent) respondents said that they have used the Internet to look for health information, including disease-specific information (52 percent) and facts about prescription medications (48 percent). When searching for information about their prescriptions, 86 percent of Internet users wanted to know about a drug's side effects, while eighty-one percent were looking for general information about their medications and seventy-eight percent searched for facts on drug interactions.

Although Internet users have easy access to health information, what they find is not always current or accurate. To give consumers a reliable place to find answers to their medication questions, ASHP has

Continued on page 16



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Medical Mission Trip Proves Rewarding

by LeAnne Kennedy

Have you ever thought about going on a medical mission trip but weren't really sure what you could do? That was my feeling when I was approached last year and asked to go with a group from my church. Last year, a team of 15 members, including Ron Watts, a community pharmacist from Walnut Cove, went to La Paz, Bolivia for a 5-day medical clinic. This year the team grew larger and again I was asked to go—this time I said, "yes" and so we left in the spring on a 10-day mission trip. The medical team included three family practice physicians, one urologist, two dentists and one dental student, five nurses, 10 support personnel and two pharmacists. Our group also took a five-member evangelical team that provided drama and music in the morning while patients were waiting to be seen and then returned at night for tent services. The number of children increased each night from 50 the first night to over 200 the last night! We also had a lot of support at home before we left. We were very fortunate to have our young girls mission group and the senior groups package medications in one-month supply packs that made dispensing much easier. This really saved time as we dispensed large quantities of vitamins.

LeAnne Kennedy and Ron Watts prepare to dispense medication at a "makeshift" pharmacy in Bolivia.

Through our five-day clinic we were able to provide care (medical, dental and optical) to over 2,000 Amayra Indians in the El Alto region of Bolivia. Medical coverage, education and general welfare have been neglected in this region by the national government. We were able to take over 14 trunks full of medications that were either donated from pharmaceutical companies or purchased by the church. Each patient who came to the pharmacy left with an average of two prescriptions each. It is amazing what you can do without the legal regulations and calling about third-party insurance! Sometimes we would stop what we were doing and realize that we were dispensing $300 worth of medication to people who had no realization of the "gift" they were being given. Even though we couldn't communicate, they would smile at us and say "gracias" and we would smile back. Isn't that all the thanks we need?

Our working conditions were better than last year. Just the week before we arrived, the room we would be using housed approximately 70 elementary aged children for school. This room (16 x 20) had two windows (one for drop-off and one for pick-up). The paint on the walls was peeling and the floor was dirt. We were fortunate to have a waist-high table that served as our dispensing station. The first day, as we were setting up, we looked at the table and realized that it was fuzzy with mold. After finding some disinfectant, we cleaned it and then covered it with plastic. This was an example of how to be flexible on the mission field. Since neither Ron nor I spoke Spanish or Amayra we had a translator from our group, Kathy Neal, who did our patient counseling for us. You can imagine how fatigued she was at the end of the day. Ron also brought his 14-year-old daughter Celeste who was a wonderful technician and a great shopper! Debra Norris, an ICU-nurse, was our other technician who helped administer medications to the children.

Another rewarding effort was being able to administer first doses such as the loading dose of azithromycin. We felt that at least these children would get some of their medication. It also made it easier not having to explain the loading dose and the difference between the next four doses! Since there were no phones ringing, no pagers going off—we were able to have lots of fun while we worked. Order clarifications were easy to obtain. We just had to go out of our "room" and into the tent where the doctors were working. We were also given liberties in deciding the therapies, especially as the week progressed and the medications began to be in short supply. By the end of the week the doctors would write, "NSAID and PPI/H_2 antagonist/or whatever!" Other examples of pharmacist interventions included one patient needing a prednisone taper. This provided a challenge for patient counseling. We decided to place each day's dose in a separate bag and label each bag. Therapeutic decisions were also common as we made substitutions in antibiotic choices based on the available antibiotics, including dosing and length of therapy. An interesting fact concerning hospital pharmacy was that when patients were in the hospital, there was no centralized pharmacy. The patient or a family member must go to the pharmacy and bring in the necessary medications to be given.

Our team did learn about medication therapy for ourselves. Due to the altitude (over 12,000 feet), we all took a course of acetazolamide to prevent altitude sickness which seemed to work well. We also took prophylactic antibiotics to prevent traveler's diarrhea. We never left the hotel without a tank of oxygen or our own "crash cart". This is the benefit of traveling with medical professionals. We kept IV fluids, IV antibiotics, antiemetics, and other emergency medications with us just in case. Fortunately, we didn't have to do this often, although we gave out our fair share of loperamide, especially towards the end of the week! In the end, several of us opted to take a course of medenazole just in case.

As I was preparing for my trip, I was asked, "why go all the way to Bolivia when there is so much to do here?" The Bolivian people realize that we all made a sacrifice to come (time away from our family, jobs and comforts of home), and they really appreciate anything that we can do. The trip was very rewarding as we worked hard and played a little. It helped me to realize how really fortunate we are to live in such a rich country. I know from talking to the head physician for our team that pharmacists are a great addition and considered luxuries because of the shortage of available and willing pharmacists. If you ever get a chance to go on a medical mission trip like ours, please make every effort to go. You'll be glad you did; I know I am. I plan to go back next year, God willing. ❖

About the Author...

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Chronic Care

Senior Vaccination Season Coalition Formed

by Chris Honeycutt

In the United States, influenza causes an average of 20,000 deaths per year, 90% of which occur among persons 65 or older. In addition, pneumococcal infection accounts for more deaths than any other vaccine-preventable disease. Even with intensive medical care and use of appropriate microbial antibiotics, the case fatality rate for pneumococcal bacteremia is 15%-20% among adults and a staggering 30% to 40% in the elderly. Last year alone, over 2,000 North Carolina seniors died from complications of either flu or pneumonia. Much of the burden of these diseases can be eliminated through proper vaccinations.

Although the cost of both vaccinations is covered by Medicare Part B, North Carolina immunization rates remain quite low. Overall, the influenza vaccination rate for NC Medicare beneficiaries over 65 is only 46 % (according to NC Medicare claims data). More alarming, the African American population has a vaccination rate of only 26.5%. As with influenza, the pneumococcal vaccine is also being underutilized, even with the added advantage of being a one-time injection after the age of 65 (in most populations). The pneumococcal vaccination rate for Medicare beneficiaries (who turned 65 between 1/1/91 and 12/31/98) is only 27.6 % throughout the state, with less than one-fifth of all eligible minorities receiving the pneumonia vaccine.

The severity of these problems has led to the formation of the Senior Vaccination Season Coalition, co-chaired by Medical Review of North Carolina, Inc. (MRNC) and the Division of Public Health. This statewide initiative is organized through a collaboration of over 40 public and private organizations along with health departments in each North Carolina county. The main goal is to increase the number of immunizations given throughout the state by targeting health care providers of all occupations to actively educate, facilitate, and immunize all vulnerable populations.

There are many reasons why individuals choose not to be immunized. To gain insight into these barriers, MRNC sponsored a series of focus groups to explore the health behaviors of the senior population. Surprisingly, access to immunizations is not a barrier for seniors; they know where they can be immunized and that Medicare will cover the cost. Seniors who do not get flu shots tend to believe that they are not susceptible, or that the shot will make them sick. In contrast, the reason most seniors do not get the pneumococcal vaccine is because they simply do not know about it.

So where do we fit in? As pharmacists, we are among the most influential individuals to the senior population. As indicated by our focus groups, seniors recognize that they see their pharmacist more frequently than their physician and observed that pharmacists spend more time talking to them, which makes them feel valued and important. This frequent interaction makes a pharmacist the most accessible member of the health care family and, because of this accessibility, we are in a perfect position to help inform as well as dispel the myths associated with vaccines and provide other important medical advice. Focus group participants reinforced this perception by claiming that the pharmacist is viewed as an extremely rich and accessible source of information. In addition, most indicated that they have ongoing relationships with their pharmacist and consider the pharmacist as the most knowledgeable health care professional in terms of their medication usage.

As evidenced by our yearly recognition as one of the most trusted professions, we are well respected for our knowledge, advice, and ability to build meaningful relationships with our patients. The elderly are not always proactive concerning their health. Because of this, the senior population especially relies heavily upon the advice of pharmacists in determining their health choices and behaviors. While focus group participants noted they would rather be told by their physician to be immunized, they insisted they would be willing to be immunized by their pharmacist. In fact, most felt that the pharmacy is an optimal location for health information and health promotion. Hospital and clinical pharmacists also have an opportunity to take a proactive role in the immunization of their patients. An example is supporting standing orders for immunizations in your institution. Research has proven that these types of orders greatly increase the percentages of people immunized. Being an advocate for these types of administrative changes will certainly improve the health of the community around you.

In terms of promoting health issues, it's important that health care professionals understand some key concepts. Seniors are NOT motivated by messages that attempt to increase their perceived risk. A poster including flu statistics and indicating that seniors can die from the flu is not a powerful motivator. It's important to remember what seniors WANT out of life. They want to be independent and in control of their lives. They want to remain healthy and active and not have to be cared for by others. If you take a moment to glance at pharmaceutical ads targeting seniors, you'll see that these messages are repeated throughout the text. Images of healthy and active seniors are motivating to this group. They want a visual representation of the kind of life they can lead if they are immunized, not a message that they could get sick and die if they don't.

Senior Vaccination Season 2000 is addressing vaccination barriers by providing physicians, nurses, pharmacists, and other health care workers with resources that will improve immunization rates throughout the state. Public outreach programs include programs that will target African American churches, rural communities, seniors, and others. In addition, MRNC is offering free influenza and pneumococcal posters and brochures to put outside your place of practice. These are good aids to remind patients of vaccinations as well as to facilitate discussion concerning immunizations.

If you are interested in obtaining these aids please contact Randee Gordon by August 15, 2000 at 919.851.2955 or via e-mail at ncpro.rgordon@sdps.org ❖

About the Author...

Chris Honeycutt, RPh, is employed with Medical Review of North Carolina. He is currently enrolled in the masters program in Pharmoceutical Outcomes at the UNC School of Pharmacy. He can be reached at chris_honeycutt@unc.edu

Pharmacogenetics: A Future Aid to Guide Drug Treatment

Most pharmacists will agree that patient compliance is one of the most frustrating aspects of their job as healthcare providers. However, the guessing game of picking a safe and effective dose of medicine for a patient may be a close second. In the future, a genetic test or medicine response test could predict an individual's response to a drug before it is prescribed, thus eliminating trial and error and assuring that the right medicine at the correct dose is prescribed to the patient.

by Kunal Merchant

Pharmacogenetics, or the study of variability in drug response due to genetic variability, promises to be a clear diagnostic in the quest for better patient care. Individualized prescriptions based on genetic screening would reduce incidences of adverse drug reactions, as well as identify a cross-section of the population for whom a drug may or may not be beneficial. The medicine response profile does not involve identifying a particular gene related to a disease such as cystic fibrosis or sickle cell anemia. Rather, it would provide a drug-specific response profile of an individual, including the ability of the patient to metabolize the drug using a genetic pattern of single nucleotide polymorphisms or SNPs (pronounced snips), which are inherited variations between human beings (please see the Figure 1 for an explanation of genetic terms).

A SNP is a single base difference between individuals at a particular location in the human genome. They occur approximately every thousand base pairs. On average, there are an estimated three million SNPs in the human genome, giving rise to different genotypes. A constellation of SNPs, at a given location in the human genome, represents a genotype that may be related to a certain phenotype or expressed trait. Phenotypes are physical traits, such as eye color, or clinical traits, such as an adverse response to a drug. As SNPs are identified, a high-density SNP map will be generated by "The SNP Consortium" an organization formed by members from academia, industry, and the Wellcome Trust (see "additional information" at the end of this article for web information on The SNP Consortium), who will make genomic data available to the public without intellectual property restrictions.

The role of SNPs becomes even more important when one considers that inherited differences in drug metabolism are not usually monogenic traits (or phenotypes that result from variations in a single gene). Identifying all the genes that underlie every adverse event is impractical. Therefore, the challenge is to correlate a particular set of SNPs with a corresponding phenotype. For example, in a clinical trial, an adverse event (the phenotype, in this case) could be correlated with a set of SNPs unique to affected patients. Patients in the general population who are later prescribed the drug could be screened for the same SNPs, thus preempting an adverse event. Similarly, SNPs also serve as an efficacy measure for developing drugs. Patient response to a drug could be screened during clinical trials and correlated to SNP markers. Consequently, a simpler protocol and a much smaller population of patients who respond well to the drug could replace the traditionally large phase III study population, curb the attrition rate of drugs at this stage in development, and considerably reduce development costs.

It is no surprise that polymorphisms are usually identified at or near the genes of the drug targets and can alter the sensitivity of drug response. In a clinical study on the response of asthmatic children to albuterol, slight differences in the structure of the receptor for albuterol were responsible for sensitivity to drug. The children showed increased or decreased sensitivity to albuterol depending on the combination of alleles present in their genes for this receptor. The availability of pharmacogenetic data of drug targets can further refine drug discovery and development. Adverse and/or ineffective features can be rooted out in the discovery phase based on target-related genetic information prevalent in a large cross-section of the population. Advances in pharmacogenetics, therefore, hold the promise of developing newer, better drugs that have a shorter time to market and are cheaper to produce.

The emerging field of pharmacogenetics will obviously improve health care. Diagnosis will be based on genetic components as well as the traditional symptom-based approach. Pharmacogenetics will also provide a safer, more economic course of treatment. However, such advancement, like all advancements, comes with its own perils. Genetic information obtained from individuals has the potential to be misused even as the regulatory, legal, and ethical issues are being considered and new laws that govern these issues are being developed. Further, this technology would allow the introduction of drugs that are safe and efficacious for a majority of the population but extremely toxic to a few. Improper diagnosis and administration of such drugs to the "genetically wrong" patients could have serious consequences. These concerns necessitate a team approach to healthcare and will definitely enhance the role of the pharmacist and call for greater communication between physicians, pharmacist, clinical laboratory technicians and the patients themselves. ❖

About the Author...

Kunal Merchant is a resident at the UNC School of Pharmacy, Chapel Hill, NC. She can be reached via e-mail at merchant@email.unc.edu.

Additional information can be found in the following articles:

1. Collins, F. S. Genetics: An explosion of knowledge is transforming clinical practice. Geriatrics. 1999;54:41.

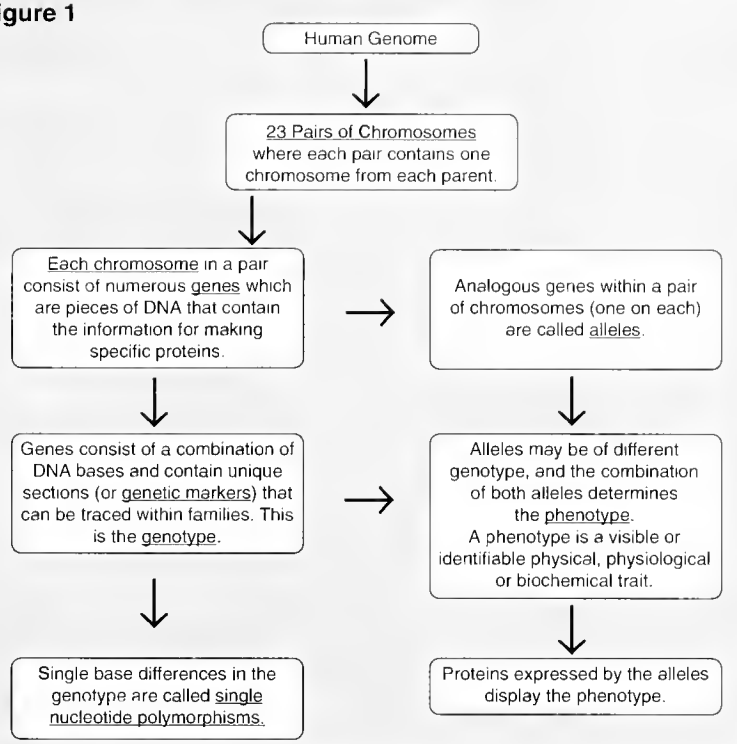
2. Evans, W. E. Pharmacogenomics: Translating functional genomics into

rational therapeutics. Science. 1999;286:487.
3. Reginaldo, A. Inventing the pharmacogenomics business. AJHP. 1999;56:40
4. Roses, A. D. Pharmacogenetics and future drug development and delivery. Lancet. 2000;355:1358
5. Roses, A. D. Pharmacogenetics and the practice of medicine. Nature. 2000;405:857
6. Sadee, W. Pharmacogenomics. BMJ. 1999;319:1286

...And websites

1. The SNP Consortium http://snp.cshl.org/index.html
2. Genetics glossary: http://genetics.glaxowellcome.com/genetics.asp
At the Genetics at Glaxo Wellcome site, click on resources to find the Glossary under Educational Materials.
3. Basic genetic information. http://www.ucl.ac.uk/~ucbhjow/bmsi/bmsi-lectures.html

Figure 1



Duke Family Medicine Center Pharmacotherapy Clinic

by Mollie Ashe Scott

The Practice Setting

The Duke University Family Medicine Center (FMC) is a multi-disciplinary clinic that provides primary care within the Duke University Medical Center health-care system. The FMC Pharmacotherapy Clinic (PC) is a physician-directed, pharmacist-managed clinic that offers collaborative drug therapy education and management services for patients in the FMC. A faculty pharmacist and/or a pharmacy resident staff the PC six half-days per week, and additional pharmacy residents and Doctor of Pharmacy students rotate through the PC during their training. Although a pharmacist manages the PC, operations are truly a collaborative effort and rely on the services of the appointment center, front desk, laboratory, social work, family medicine faculty, and primary care providers to function successfully.

Mollie Scott, PharmD, and Katie Bird, FNP discuss a treatment plan for a patient.

Six patient appointment slots ranging from 15-60 minutes are available per clinic session. Patient appointments are made through the health-system computer system and reminder calls are generated through the clinic's computerized reminder system. During each appointment, the pharmacist takes a medication and medical history, assesses for drug-related problems, and provides patient education. Appropriate laboratory tests are ordered after the visit or between visits in collaboration with the referring provider. The pharmacist presents patients with acute care needs to a faculty preceptor before the patient leaves the clinic. Patient visits are dictated for the medical record and are co-signed by the referring provider.

Unique Patient Care Services

The PC offers asthma, hyperlipidemia, and anticoagulation disease state management programs. Patients may also be referred for consults for polypharmacy reduction, pharmacotherapy recommendations, adherence education, or in-home assessments. Drug information services and monthly lectures on medication issues are provided for FMC faculty and Duke Family Medicine residents.

Determining a Need for Pharmaceutical Care Services

FMC physicians, coping with the pressures of seeing patients with complex medical issues in a short period of time, identified the importance of achieving positive drug therapy outcomes and providing quality patient counseling. Together with FMC administrators, physicians, computer personnel, and the Durham Community Health Network, the pharmacists worked to identify patients in need of drug therapy management. Patient management protocols were developed according to current clinical practice guidelines.

Reimbursement

Currently, the PC is not billing insurance companies or patients for cognitive services. However, patients who are enrolled in a managed care plan and who pay a copay to see a provider are charged their usual copay prior to the visit. Laboratory studies are billed under the referring provider.

Challenges, Lessons Learned

Challenges faced by the PC are addressed in an interdisciplinary Care Team meeting where new ideas are generated and improvement in the provision of patient care is sought. A few challenges the PC has faced include:

1. Anticoagulation Management. Laboratory studies must be ordered under their name of the referring provider rather than under the pharmacists' names due to health system policy. To ensure prompt review of laboratory studies, the laboratory maintains a list of all anticoagulated patients managed in the PC so that laboratory studies ordered for those patients are returned to the pharmacists rather than to the ordering provider.
2. Asthma Education and Management. Nonadherence with clinic visits has been problematic. Patients who miss an appointment are called by the appointment center to reschedule their visit. Asthma patients enrolled in Medicaid Carolina Access II are also contacted by their assigned case worker to provide additional reinforcement regarding the importance of appointment adherence.
3. Hyperlipidemia Education and Management. The original plan to identify and enroll high risk patients who previously experienced a stroke or myocardial infarction for lipid management was unsuccessful. Secondary prevention patients were identified using ICD-9 codes and providers were notified if the LDL goal was not achieved and encouraged to refer the patient

to the PC. However, providers found this process to be laborious and have preferred to refer patients as they see them in clinic. Consequently, the growth of the hyperlipidemia program has been slow, but steady.

Future Directions

Currently 120 patients are enrolled in the PC for ongoing education and drug therapy monitoring (25 for anticoagulation, 35 for hyperlipidemia, and 60 for asthma) and there is interest in developing a smoking cessation program. Patient satisfaction for patients receiving chronic anticoagulation has been excellent, and asthma patients and FMC providers are currently being surveyed about their satisfaction with the PC. Opportunities for more consistent reimbursement are being explored.

Vital Statistics

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Phone: (919)-681-2369
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New Resolutions Adopted at 2000 USP Convention

by Stephen Eckel

I was given the opportunity to represent NCAP at the United States Pharmacopeial Convention held April 12-16, 2000. The United States Pharmacopeia (USP) meets every five years as an official convention. The first convention occurred in 1820, making this meeting the first activity in their third century of existence. Only certain organizations are invited to send representatives to the convention: US colleges and schools of medicine, state medical societies, US colleges and schools of pharmacy, state pharmacy associations, and national and state professional and scientific organizations. There are other representatives to the convention, but these make up the bulk of invitees.

The USP is dedicated to promoting "the public health by establishing and disseminating officially recognized standards of quality and authoritative information for the use of medicines and health care technologies by health care professionals, patients, and consumers." They accomplish this mission through numerous avenues. They publish the USP-NF (national formulary) that provides official monographs and standards for all marketed medications and some nutritional supplements. They also publish and disseminate the USP-DI (drug information) which is a "comprehensive collection of clinically relevant, established information about each drug." The first volume provides a monograph for each medicine and compares individual agents within a class review. Another volume provides individual drug monographs written for the public to comprehend. A final volume contains approved drug products and legal requirements. USP also maintains MedMARx®, a national database having the goal of reducing hospital medication errors. All hospitals are eligible to become members and use this anonymous service. After becoming a member, all medication misadventures must be added to the database for others to view and learn. It allows hospitals to benchmark themselves against other comparable institutions and to view variances in hospitals with the goal of recognizing potential problems in their operations. These are a few of the major initiatives that USP coordinates to fulfill their mission statement.

At the 2000 convention, numerous resolutions were adopted. These resolutions are essentially strategic planning guides that USP uses to evaluate future directions for the next five years (until the next convention). I will highlight a few of the resolutions adopted by the convention which are of interest to NCAP members:

- Evaluate specific initiatives focused on the development of appropriate compounding guidelines and monographs for commonly prescribed medicines and dosage forms that are not available for use in special populations.
- Evaluate establishing standards for packaging, labeling, nomenclature, and dosage form characteristics to aid in the reduction and prevention of medication errors, and to support safe and proper use of medicines.
- Evaluate developing and promoting standardized imprint coding for all solid oral dosage forms.
- Evaluate developing, validating, and disseminating evidence-based therapeutic decision support information that focuses on improving prescribing and the use of medicines.
- Facilitate and contribute to the development of a rational school medicines policy.

Representing NCAP was an educational experience for me as I realized the extent to which USP is involved in promoting the profession of pharmacy. Hopefully with adopting and acting on these resolutions, USP will continue to help pharmacy through reducing medication errors and promoting product integrity of marketed substances. ❖

About the Author...
Stephen Eckel is the Acute Care Services Manager and Residency Coordinator at UNC Hospitals. He can be reached via e-mail at seckel@unch.unc.edu

WellPath Initiates Focus Groups with Pharmacists

WellPath Community Health Plans (WellPath) is a regional health care management and benefits company which brings together a combination of managed care experience, a high level of customer satisfaction, and access to quality health care and service. A Chapel Hill, NC-based organization, WellPath's roots are very much in the Carolinas. We are uniquely positioned to respond to our region's needs for cost-efficient, quality health care benefits plans.

Product Spectrum

WellPath offers a broad spectrum of health care benefits products to North Carolina and South Carolina communities. With a variety of products from which to choose, employers can be confident in finding a plan that fits their needs:

- WellPath Select: health maintenance organization (HMO) plans
- WellPath SelectPlus: point-of-service (POS) plans
- WellPath Direct: open access HMO plans
- WellPath DirectPlus: open access POS plans
- WellPath Preferred: preferred provider organization (PPO) plans
- multiple-option plans.

Pharmacy Network

WellPath works through Express Scripts Inc. ("ESI") to provide a pharmacy network and claims payment system for our members' prescription drug coverage. WellPath is committed to working with network pharmacies to meet our goal of providing excellent service to our members. We appreciate the time and details involved in filling a member's prescription, as well as some of the issues faced by pharmacists. At WellPath we are working diligently to constantly improve processes and relations with the pharmacists in our network pharmacies.

Pharmacists are encouraged to contact the ESI 24-hour helpline at (800) 235-4357 if they experience a problem while trying to run a prescription. If the pharmacist is unable to obtain timely assistance from ESI, he or she should call WellPath Member Services at (800) 935-7284, between 8 a.m. and 6 p.m., Monday through Friday (except holidays).

We have collected valuable information by tracking and trending members' questions and concerns which provides us with the most common reasons for the calls we receive from members and pharmacists:

Member Identification Numbers:

- When submitting a prescription online for female subscribers, the pharmacists will need to substitute "00" instead of "10" as the terminal two digits of the subscriber's identification number.
- An initial letter "M" is a required part of the WellPath 65 member's identification number.
- If a WellPath member is unable to present his or her member identification card or number, please contact WellPath Member Services. We will gladly provide that member's identification number.

Quantity and Copayments:

- WellPath limits the quantity of certain medications for reasons other than clinical safety. In these situations, a member can pay out-of-pocket for any additional quantity prescribed. (For example, for members whose prescription drug benefit includes coverage for drugs to treat sexual dysfunction, Viagra is limited to six tablets per month. If the member presents a prescription for ten tablets, WellPath would provide coverage for first six and the member may purchase the four additional tablets. Other examples are Ambien and Sonata. Coverage for these drugs is limited to 10 tablets per month. If the member presents a prescription for 30 tablets, WellPath would provide coverage for first 10 tablets and the member may purchase the 20 additional tablets.)
- Most WellPath prescription drug benefit plans require one copay for each 30-day supply. A prescription filled for a 31-day supply will therefore require two copays. Our members would appreciate being informed of this prior to the prescription being filled, and given the choice to have only the 30-day supply dispensed. Please note, however, beginning October 2000, the prescription drug benefit for State Health Plan members will be one copay for each 34-day supply.

Improving Administration

WellPath is proactively exploring several ways to decrease the administrative burden for pharmacists. We are actively investigating electronic point-of-prescribing technology with several physician groups, as well as the feasibility of encoding member ID numbers and other pertinent information on the member ID card in either optical or magnetic format.

WellPath welcomes pharmacists' input into plan decisions. We also invite pharmacists who are interested in serving on the WellPath's Pharmacy and Therapeutics, and Quality Improvement committees to contact Senior Medical Director Dan Barco, MD, or Medical Director Marvin McBride, MD, to discuss their concerns. Both medical directors may be reached by calling (800) 935-7284, ext. 3924.

WellPath also has initiated focus groups with Dan Garrett and NCAP, as well as representatives of national chain pharmacies and local independent pharmacies to explore areas where we can work together to improve the health of our members and improve the service we provide. We consider pharmacists to be an important resource in our health care system and recognize that you have often been overlooked in the many changes our health care system has undergone in recent years. We look forward to continuing to strengthen our relationship with you. ❖

If you have questions about WellPath please contact J. Marvin McBride, MD, Medical Director, at 919.493.1210.

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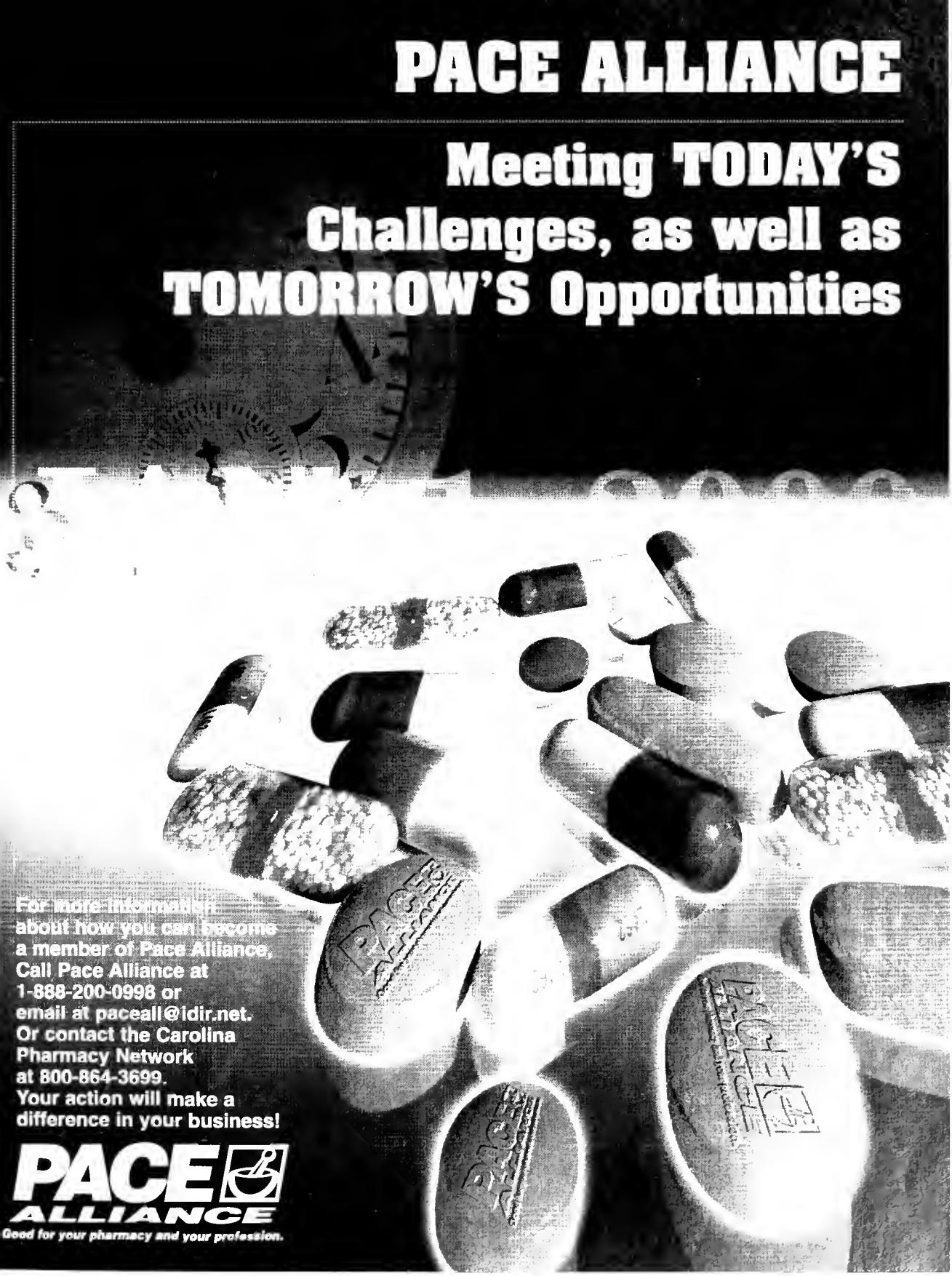

For more information about how you can become a member of Pace Alliance, Call Pace Alliance at 1-888-200-0998 or email at paceall@idir.net. Or contact the Carolina Pharmacy Network at 800-864-3699. Your action will make a difference in your business!

PACE ALLIANCE

Good for your pharmacy and your profession.

Continued from page 6 : "Consumer Use of Internet..."

launched a new Website, www.safemedication.com. The site features MedMaster™, an innovative database created by ASHP that provides in-depth descriptions of prescription and non-prescription drugs. Consumers can get general information about why a specific medication is prescribed, proper usage, dangerous interactions, and potential side effects. Visitors to safemedication.com can also receive tips on preventing medication errors and disease treatment and prevention.

"With rising concerns about medication errors, patients and consumers need trusted resources to turn to for their medication questions," said Dr. Bruce E. Scott, President of ASHP. "Safemedication.com is backed by ASHP's extensive library of drug information resources so that consumers will receive the most current information and recommendations to use their medications safely."

You can access www.safemedication.com directly or enter through the Links Section of the NCAP website at www.ncpharmacists.org. ❖

Team Leadership Workshops Held

by Craig Schury

What are the characteristics of today's healthcare teams? How are they different today than they were yesterday? Who are the team members and what is their effect on the team dynamic? These are questions that were discussed at a recent Team Leadership Workshop presented by the North Carolina Association of Pharmacists and sponsored by an unrestricted educational grant from Roche.

"Strategies for Creating Productive Relationships" was the theme for the workshop which was held June 16, 2000 at the Speedway Club in Concord, NC and June 21, 2000 at the Aqueduct Conference Center in Chapel Hill, NC. Dan Garrett, NCAP Executive Director, hosted and led the seminar discussions. Hospital, retail and long-term care pharmacists were present to learn and share their experiences.

Learning about team dynamics and how personalities effect them was the primary focus of much of the seminar. Today's teams differ in many ways from yesterdays but most notably, they are constantly changing. Team members, loyalties and focus change regularly. For many, this creates chaotic team environments and confusing lines of communication.

Participants were asked to fill out two personality assessments and the results were discussed. The profiles were used as a basis for individuals to understand themselves and others who were assessed. The profiles also provided a guide to different personality types. Individual strengths and weaknesses were indicated. Suggestions on how to increase trust and communication were provided which helped participants understand how to better communicate with team members.

Techniques to increase individual and team performance were also reviewed. For example, participants were asked to use the acronym REST - Recognize, Encourage, Share and Trust. Taking time to REST is an easy and effective tool to boost individual and team performance when used properly. All participants were encouraged to use the knowledge they gained from the session and to do further reading on the subject. Workshop attendees left with a greater understanding of teams and of themselves. ❖

About the Author...
Craig Schury is a pharmacist at Eckerd Drug in Charlotte, NC. He can be reached via e-mail at cschury@carolina.rr.com

If you're licensed in South Carolina...

As a reminder to pharmacists who are licensed in South Carolina, you may only use continuing education hours from an ACPE approved provider or Category 1 CME for license renewal. You may not use hours approved through the North Carolina Continuing Pharmaceutical Education Program for South Carolina licensure renewal.

The following Act has been in effect since May 27, 1998:

Section 40-43-130(B) of the South Carolina Pharmacy Practice Act states: *Each licensed pharmacist, as a condition of an active status license renewal, shall complete fifteen hours (1.5 CEU's) of American Council on Pharmaceutical Education (ACPE) accredited continuing pharmacy education or continuing medical education (CME), Category I, or both, each license year. Of the fifteen hours, a minimum of six hours must be obtained through attendance at lectures, seminars, or workshops. At lease fifty percent of the total number of hours required must be in drug therapy or patient management.*

Changes to Continuing Education

In order to better serve our members, the *North Carolina Pharmacist* will be mailing a special CE Supplement only to members who request it. CE will no longer be published in the Journal, leaving more room for news of interest to all readers. As always, Continuing Education is available only to members. Members who would like to be added to the mailing list for CE should contact

Teressa Reavis at teressa@ncpharmacists.org or call (800) 852-7343.

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Convention Update

Now is the time to make reservations for the North Carolina Annual Pharmacy Convention, September 7-8, and Annual Pharmacy Practice Seminar, September 9-10, at the Wilmington Hilton in beautiful downtown Wilmington, NC.

Highlights of the Convention/Seminar include:

- The NCAP Golf Tournament at Echo Farms Golf Club, Friday at 2:00 pm. To sign up call Amy Hershberger at 919.967.2237.
- A Dinner Dance Cruise will be held aboard North Carolina's largest riverboat, the Henrietta III. Boarding begins at 7:00 pm on Friday evening. The cost is $32 for adults, $22 for children ages 2-12. You can make your reservations directly by calling 800.676.0162. Be sure to mention you are with NCAP!
- An Open Forum with the NCAP Board of Directors and Officers will be held Thursday, 11:00 am to 12:00 noon.
- Sought-after keynote speaker Wayne Sotile will present "Stress Management for Busy Pharmacists" on Friday at 11:00 am. He was so well received at the Annual Winter Meeting in Greensboro that he's back by popular demand. Don't miss this dynamic speaker!
- In conjunction with the Convention/Seminar, an Immunization Certificate Program will be offered September 8-9. Call NCAP at 919.967.2237 for more information.

A block of hotel rooms has been reserved in downtown Wilmington at the Hilton (910.763.5900) and at the Coast Line Inn (800.617.7732). For reservation information and a complete schedule of events contact Amy Hershberger at 919.967.2237.

Pharmacists Mutual Offers New Service

A new service that is dedicated to developing quality improvement systems to address errors in pharmacy is now being offered by Pharmacists Mutual Insurance Company. The new program, based on a system of continuous quality improvement designed by pharmacists-attorneys David Brushwood and Ken Baker, will offer services that proactively organize pharmacy practices to improve quality by learning from the past and improving in the future.

No program can promise zero errors; however, this new program provides pharmacies with validated standards for quality, and with specific techniques, forms and training tools to detect and absorb human error into the practice system. Consistent with the principles described in the Institute of Medicine report, "To Err is Human: Building a Safer Health System," the new program puts theory into practice to improve outcomes for patients by redesigning pharmacy systems for safety.

Pharmacists Mutual Insurance Company was established in 1909 by pharmacists who believed that only a company dedicated to and directed by pharmacists could understand and address the problems faced by the profession of pharmacy. This new service continues that commitment and belief. For more information on this unique service, please call 800-247-5930, ext. 229 for Jack Williams.

Assisted Living Facilities Experience Transformation

by Mike List

Adult care homes, also known by many as assisted living facilities, have undergone a vast transformation over the last five years. The rules that govern these homes have also undergone a vast transformation over the last seven months.

The North Carolina Department of Health and Human Services has adopted new rules for adult care homes. Many of these new rules have evolved from the unacceptable level of medication errors and improper handling of medications in these facilities. There are approximately 1,660 licensed adult care beds in the state of North Carolina. This number does not include the adult care beds in combination nursing facilities.

Heretofore, medication administration to residents of these facilities has been through unlicensed, minimally trained aides (also known as med techs or med aides). Asked to perform many of the same medication administration functions as trained, licensed nurses in skilled nursing facilities, med techs in adult care homes have received minimal training in the proper handling, storage, and administration of medications. This has resulted in a high and unacceptable medication error rate in many of these facilities throughout the state.

Chronic Care

Until enacted into law by the North Carolina General Assembly, temporary rules have been adopted by DHHS in part to help improve the education and training of the personnel responsible for administration of medication to residents of adult care homes. Loose requirements for medication aides have now been replaced with more structured and reproducible requirements that ensure personnel have the training and documentation of competency to effectively administer medications.

Specifically, the new rules specify that medication aides and their supervisors complete a competency evaluation which includes clinical skills validation. Of note, the Medication Administration Clinical Skills Checklist which was to be completed for all med techs by April 1, 2000 included:

- Basic medication information and medical terminology
- Understanding of all aspects of a proper medication order
- Documentation of appropriate technique to obtain vitals such as blood pressures, pulse rates, respirations, and temperatures
- Demonstration of proper administration of medications including appropriate administration for various dosage forms
- Proper documentation of medication administration
- Proper medication storage
- Proper orientation to residents who self-administer, and orientation to the facilities' pharmacy policy and procedure manual. Effective April 1, 2000, the checklist had to be completed, or skills validated, prior to staff administering medications in adult care homes.

In many cases, pharmacists across the state conducted programs to educate and prepare med techs for the new requirements. Additionally, pharmacists were instrumental in performing the skills checklist (with the exception of some personal care areas) for many med techs. Staff were either identified as successfully completing the checklist, or as needing more training in certain areas. For these individuals, a subsequent assessment of the deficient areas was performed to ensure competency. Staff who underwent a training program and thorough skills check-off will have a strong foundation of knowledge for meeting all the requirements to ultimately administer medications.

Most importantly, however, is the requirement of unlicensed staff to pass a written competency exam, with a minimum passing score of 90%. Once successfully completed, a medication aide should meet the qualifications to administer medications.

The Adult Care Licensure Section of the Division of Facility Services has published a Medication Study Guide which includes sample questions and detailed answers to these questions. If reviewed appropriately, this guide should help prepare the exam candidates.

To ensure exam reliability and validity, the Division of Facility Services has undergone pilot testing of possible exam questions for volunteers interested in participating in the project. The North Carolina Family Care Facilities Association and North Carolina Association of Long Term Care Facilities have been working closely with the DFS in this project.

The old rules in this area required "the administrator was responsible for assuring that staff was competent, and demonstrated ability to perform tasks and received training." The new regulation provides a more comprehensive, uniform, and documentable set of standards for all unlicensed personnel in adult care homes.

Another exciting enhancement of the adult care home regulations is the increased frequency for the provision of pharmaceutical care. The previous regulations called for medication reviews for all residents every six months. The new requirements increase the frequency of drug regimen reviews to once every three months. This presents a tremendous opportunity for pharmacists! In fact, increased participation by pharmacists initiated for nursing facilities several years ago have demonstrated reduced medication misadventures, reduced health care costs, and improved patient outcomes. A study published in the October 13, 1997 *Archives of Internal Medicine* showed that pharmacist interventions during drug regimen reviews in skilled nursing facilities saved 3.6 billion dollars, while improving patient outcomes by 43%. Many residents in adult care homes consume more medications than residents in nursing facilities. It is exciting to think of the impact pharmacists can have in this arena! There is no reason to doubt that diligent pharmacist review and intervention cannot produce similar results in adult care homes as realized in skilled nursing facilities.

Opportunities abound for pharmacists under these new regulations. We all look forward to improved med tech training and more frequent drug reviews that should ultimately benefit all adult care home residents. ❖

About the Author....

Mike List is Regional Clinical Manager at Neil Medical Graup. He can be reached via e-mail at mllistt@aal.com

Ralph P. Rogers, Sr. Pharmaceutical Policy and Evaluative Sciences Award

The University of North Carolina School of Pharmacy presented the 2000 Ralph P. Rogers, Sr. Award to Jennifer Justice, Doctorate of Pharmacy Candidate 2001. The award was established in 1978 in memory of Ralph P. Rogers, Sr., a distinguished pharmacist. Jennifer earned this award by submitting the following paper:

Pharmacy is a dynamic vocation, constantly changing in an effort to balance the needs of society and growth of the profession. Changes in the system of healthcare delivery have altered, and will continue to alter the services community pharmacists must provide in order to satisfy patient demands and still maintain a respectable, valuable, and lucrative career. This essay will focus on three components of the current state of healthcare: consumer sophistication and demand, significant advances in technology, and team approaches to patient care.

Patients are smarter than ever before. Rising prescription and healthcare costs are becoming extremely expensive, and patients have high expectations regarding quality of service for the price.[1] Patients are also using technology, such as the Internet, to access health information. In order to satisfy increased patient demand, pharmacists must make an increased effort to customize patient care. This can be accomplished through better communication with patients, offering seminars to educate the community, facilitating discussion groups for patients with a common disease state, and providing pharmaceutical care services.[2-6] Pharmaceutical care programs should be based on community and patient need, and these programs should be continually assessed and modified as needed.[7,8]

Two health technologies that should be of particular interest to community pharmacists include diagnostic and screening techniques and information technology and telecommunications.[9] Cholesterol and hypertension screening are examples of technologies that pharmacists are employing to improve patients' health, make appropriate physician referrals, and receive financial compensation for their services.[10,11] Pharmacists should also take advantage of information technology and telecommunications. Researching health information is one of the most popular reasons for using the Internet.[12] Community pharmacies should create their own webpage, where patients can email questions, request refills, and facilitate discussion forums for various disease states and conditions. Webpages allow pharmacists to advertise their services and disseminate valuable information to patients. Telecommunications can provide many opportunities for pharmacists knowledgeable and proficient with its capabilities such as electronic consultations with patients and other health care professionals and receiving continuing education credit via the web.[13,14] These numerous technological advances may at first seem overwhelming to many community pharmacists, but becoming educated about the new advances can help improve the quality of care we provide and prove financially rewarding.

Several studies have examined the instrumental roles that pharmacists play on patient healthcare teams.[2,15] Pharmacists are highly respected by the public,[16] and therefore, community pharmacies are often the first stop for patients seeking medical advice. When pharmacists make appropriate physician referrals, the patient, pharmacist, and physician benefit from the pharmacist's good judgement. Community pharmacists should work to establish professional relationships with local physicians and nurses. Making themselves available to physicians and nurses via phone or by office visit, is the first step pharmacists should take to demonstrate their willingness to establish a health care team for the patient. Pharmacists should also not hesitate to call a physician's office when they have questions about the patient's medication. The physician may appreciate their expertise.

Consumer sophistication and demand, significant advances in technology, and team approaches to patient care are just three components of the current state of healthcare that community pharmacists can convert into opportunities. Pharmacists must make a great effort to communicate with patients, implement pharmaceutical care services, continually learn and assess new technologies, and educate other health care professionals on the valuable services they provide. The future of our profession depends on the ability of today's pharmacists to turn threats and challenges into opportunities.

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APhA Seeks Nominations for Awards and Honors

The American Pharmaceutical Association (APhA), the national professional society of pharmacists, announces that nominations are now being accepted for the Association's practitioner awards and honors, and scientific awards and honors.

Presentation of these awards is scheduled for the APhA 148th Annual Meeting and Exposition in San Francisco, California, March 16-20, 2001. Nominations must be received at APhA headquarters by September 1, 2000. APhA's awards recognition program is American pharmacy's most comprehensive recognition program.

Guidelines for nominations, the nomination form, and complete criteria for each award are available in the "Professional Development" section of the APhA Website at www.aphanet.org. You may also write to: APhA Awards and Honors Program, 2215 Constitution Avenue, NW, Washington, DC 20037-2985, to obtain appropriate forms and instructions, indicating the awards or honors for which you wish to make a nomination. Or you may fax a request to (202) 429-6300, or e-mail to pmf@mail.aphanet.org.

NCAP Receives IACP Grant

The Institute for the Advancement of Community Pharmacy concludes its first funding cycle awarding over $6.4 million in grants to more than 75 entities. IACP has awarded NCAP a grant in the amount of $50,000 over two years to support the Diabetes Community Health Project (DCHP).

DCHP is a community-based project that is an expanded and refined version of the Asheville Project. The Asheville Project is a diabetes care model that integrates pharmacist counseling and intervention into traditional care. The DCHP involves a network of community pharmacists throughout North Carolina who undergo intensive diabetes training to improve their ability to work cooperatively with community physicians, certified diabetes educators, other health care providers and health care payers. The overall project is designed to improve the clinical, economic, and humanistic outcomes of patients with diabetes. The project will also evaluate the utility of the DCHP "toolkit," which has been developed to standardize and simplify the administrative requirements and implementation of the DCHP. Currently, pharmacist leaders in 15 communities throughout North Carolina are spearheading this effort.

IACP was founded in 1998 by the National Association of Chain Drug Stores (NACDS) and the National Community Pharmacists Association (NCPA) to meet the growing needs of community pharmacy. In August 1999, IACP received a $27.5 million grant over five years from Knoll Pharmaceutical Company to support educational initiatives, research projects and programs to enhance community pharmacy practice.

ContinuingEducation.com Launches CE for Techs

ContinuingEducation.com has launched a new track of education written specifically for Certified Pharmacy Technicians (CPhT). CPhT's are

required by the Pharmacy Technician Certification Board to obtain twenty (20) contact hours of continuing education every two years for recertification. At least one of those hours must be in pharmacy law.

CPhT's may access the website www.ContinuingEducation.com and choose from a variety of programs ranging from law to pharmacy calculations to treatment of GERD. With each program the technician simply chooses the program(s) they want, reads the material and then takes a test on-line. Upon successful completion of the test, the CPhT is awarded a certificate of completion. Test grading and issuing of the certificate are all completed on-line. ContinuingEducation.com, Inc., based in Tallahassee, FL, is a leading provider of e-learning solutions to the health care industry. ❖

Attention: Acute Care Pharmacists with Infectious Disease Interests

NCAP and Campbell University will host two side symposia at the Annual Carolina Seminar. On the afternoon of October 10, 2000 there will be an HIV and Antifungals Update along with a Pearls Session supported by Merck. On the morning of October 11 there will be a program on the Advances in the Treatment of Community Acquired Pneumonia supported by Aventis. Richard Drew and Anna Garrett will serve as moderators for the programs.

Opportunities for networking with other pharmacists with infectious disease interests will be a part of these programs. Space is limited so please contact Dan Garrett at dan@ncpharmacists.org if you are interested in attending.

2000 Calendar

August 21: The Triangle College of Clinical Pharmacy invites you to attend the following CE program "Collaborative Pharmacy Practice Acts – Pharmacy and Medical Perspectives" August 21, 2000, 1-5 pm., Friday Center, UNC Chapel Hill. RSVP ASAP to Roy Pleasants, PharmD, BCPS, at pleas005@mc.duke.edu or fax 919-681-2741.

September 7-10: Make your reservations now to attend the North Carolina Annual Pharmacy Convention and Annual Pharmacy Practice Seminar in beautiful Wilmington, NC.

September 23: "Continuing Education Seminar" sponsored by the North Carolina Association of Pharmacy Technicians, Moses Cone AHEC, Greensboro, NC. For information call NCAPT at 704.489.0216 or e-mail ncapt47@Hotmail.com

October 10-12: Annual Carolina Seminar, Greensboro.

Please visit our website at www.ncpharmacists.org for more information on upcoming meetings and events.

A Special Invitation to all pharmacists' spouses (male or female) to join the NCAP Auxiliary

You are cordially invited to "Keep the Spirit" and join the NCAP Auxiliary today. Dues for 2000 are only $25. Your dues help support projects such as:

NCAP AUXILIARY

- Scholarships for the Pharmacy Schools at the University of North Carolina and Campbell University
- Consolidated Pharmacy Student Loan Fund
- Vial of Life Program
- Maintenance for the Institute of Pharmacy Building

Your membership is essential in order to continue these projects and implement new ones that will support the profession of pharmacy. Please take time now to send your $25 check (made payable to NCAP Auxiliary) to: Jean Morse, 1419 Chester Rd., Raleigh, NC 27608.
For more information call 919-834-8195.

YOU ARE NEEDED! Don't forget to mark your calendar for the NCAP Convention September 7-8, 2000 in Wilmington, NC. Come and voice your opinion and join in the fun!

North Carolina Pharmacist

Volume 80, Number 5 ...applying drug knowledge to improve health September/October 2000

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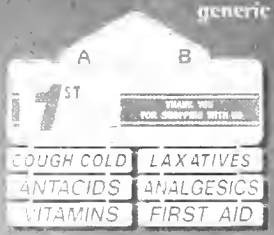

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- **Mail order pharmacy is the fastest growing segment of pharmacy volume.**
- **Consumers are turning to the internet to get their prescriptions filled.**
- **PBM's and Managed Care are shifting business to mail order and lowering pharmacists reimbursement.**
- **Hospitals are saving costs by cutting pharmacy positions.**
- **Government programs are slashing reimbursement to long-term care pharmacists.**

What can you do to help?

Join NCAP to ensure that you have a voice in the future of your profession.

A Membership Application for NCAP is on page 23.

Official Journal of the
North Carolina Association of Pharmacists
109 Church Street • Chapel Hill, NC 27516
800.852.7343 or 919.967.2237
fax 919.968.9430
www.ncpharmacists.org

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North Carolina Pharmacist

Volume 80, Number 5 ...*applying drug knowledge to improve health* September/October 2000

On the Cover

Bill Burch, RPh, of Central Pharmacy in Durham modeled for our cover. A photo of Bill also appeared on the front page of the Raleigh *News & Observer* in an article featuring the Clinical Pharmacy Practice Act. To read the *News & Observer* article visit the NCAP website at www.ncpharmacists.org.

Cover Photo by Jim Roberts

Inside

A Call to Action, the Challenges are Many!

Mark Gregory, Chairperson NCAP Membership & Marketing Council

As the chairperson representing the Membership & Marketing Council for the North Carolina Association of Pharmacists, I must say community pharmacy is experiencing some challenging times and the most challenging are yet to come. **But with challenges also come opportunities!**

Bulleted below are some issues that the industry faces. You should make your own decision as to if each issue poses a negative or positive impact to our profession.

- Between now and 2005, the number of prescriptions dispensed in community pharmacies will increase 46% while the number of community pharmacists will only increase 5.4%.
- The number one state and national political issue is a Medicare prescription benefit for seniors which may be controlled by each state or by a network of managed care organizations.
- An element of the third party reimbursement model "the AWP"(Average Wholesale Price) is under scrutiny and is being reduced for some medications to reflect acquisition cost.
- HCFA MAC (Maximum Allowable Cost) for generic reimbursement for public programs has many inconsistencies and provides little incentive for pharmacies to assist in managing drug costs.
- The availability of "membership" prescription cards or 100% co-pay cash cards continues to expand.
- Physician handheld prescription prescribing devices are currently available to proactively check for formulary compliance, patient eligibility and screen for potential drug interactions.
- Handheld prescription prescribing devices can reduce a prescription to hardcopy as well as route prescriptions to:
  1. Community pharmacy faxes
  2. Physician in-house dispensing systems
  3. Electronically to a community pharmacy system
  4. Electronically to a mail order pharmacy

- Public prescription programs see increasing costs of medication due to new therapies.
- Large PBM's have in the past and are currently going through consolidation requiring the need to re-contract their networks.
- Workflow and automatic counting technology have proven to reduce prescription errors and solve workload issues.
- Nationally, pharmacy technician programs are drawing attention as a key element to expand the role of the pharmacist.
- The pharmacist is the number one untapped healthcare provider in the community.
- Skill sets of pharmacists in managing and monitoring drug therapies and disease states have proven to reduce overall healthcare costs.
- Patients see pharmacists as one of the most trustworthy and respected professionals.

I would like to challenge all pharmacy practice settings to concentrate on the positives together to move the profession forward. At the same time, we must educate a lot of sectors of the public on potential adverse effects which may occur if the economics of pharmacy continue to be stressed. One significant step is to take part in discussions which create new opportunities for pharmacists and at the same time heightens the value of the pharmacist as part of the healthcare team. **Membership with NCAP is our best vehicle in North Carolina to help continue to develop those new models.** ❖

About the Author...
Mark Gregory is the Director of Pharmacy for Kerr Drug Stores. He can be reached at mgregory@kerrdrug.com

CPP Act Program

The Triangle College of Clinical Pharmacy held a Continuing Education Program entitled "Collaborative Pharmacy Practice Acts - Pharmacy and Medical Perspectives" August 21 in Chapel Hill. There were 225 in attendance for this informative program about key initiatives influencing the profession of pharmacy. For additional information about the Clinical Pharmacy Practice Act visit the NCAP website at www.ncpharmacists.org.

Present at the CPP Act Program were (l to r) Dr. John W Foust, Co-Chair of the subcommittee that drafted the CPP Act regulations, Andrew W. Watry, Executive Director of the North Carolina Medical Board, and Roy Pleasants, PharmD, CPP Act Program Coordinator.

North Carolina Association of Pharmacists
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Chapel Hill, NC 27516
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fax (919) 968-9430

Kevin L. Almond
President, NCAP

Fellow Pharmacists,

As a pharmacist, I have been very encouraged the last several weeks. On August 22nd, the UNC School of Pharmacy students held their annual picnic at Storybook Farm and brought with them unbridled enthusiasm for their profession. Some were just beginning their dreams of becoming pharmacists, while others had returned from one-month rotations, eager to learn more, and understanding the application of their coursework to practice.

On August 30th, I fulfilled one of my privileges as President of NCAP and spoke at Campbell University's Convocation. There we celebrated the accomplishments of pharmacist John Henley and his well-documented service to the state as a legislator. In addition, speakers lauded the virtues of pharmacy to the students. In the crowd of students representing the first three years, I recognized the faces of the children of pharmacists in our state, readying themselves to follow in their parent's profession. In another location were the fourth-year students, dressed very professionally and nodding at the many positive comments made by the speakers.

Finally, in early September, NCAP members met in Wilmington for the first convention following unification. The programming was excellent, the exhibitors brought the latest information about their products, and a lot of networking and exchanging of ideas went on outside the scheduled events. It was a blend of young and old, representing a wide range of our pharmacy practice.

The above scenarios are why we are all in pharmacy and why NCAP exists. NCAP wants to provide opportunities for young pharmacists to network with the veterans. They bring excitement, we bring experience. NCAP also wants to focus on the positive things in pharmacy while addressing the troublesome issues that we sometimes face. Whether it's drug procurement, drug reimbursement, state regulation adherence, etc., we all have portions of our job that we live with and suffer through. Although it is all too easy to dwell on these negatives, we need to remember that on the flip side are the things we do that help patients, the *stuff* we learned in School, the dreams we had when we entered School.

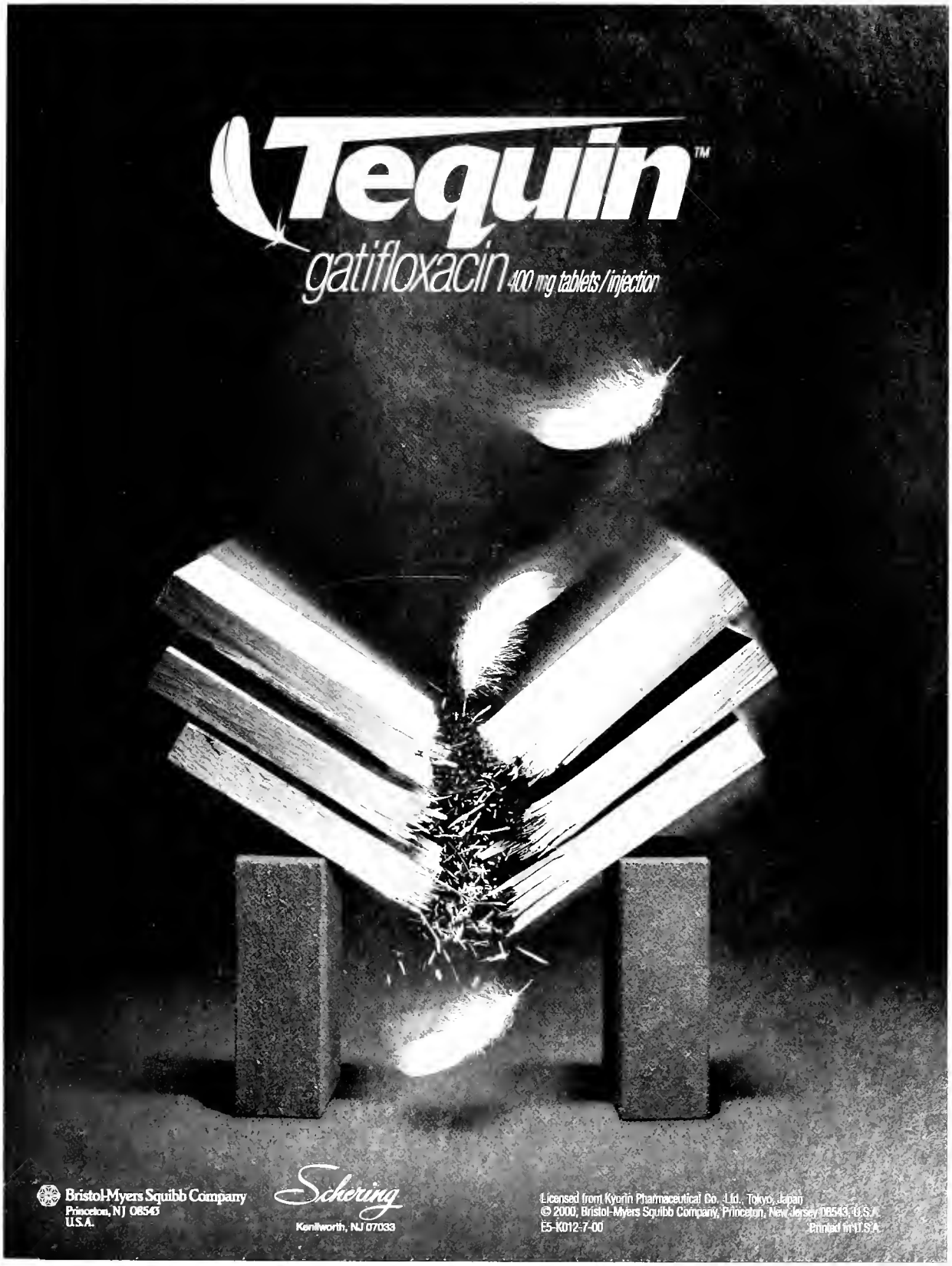
As we move towards the end of 2000, it's important for us to think about our profession. What are the things that we most enjoy about it? What are the things that NCAP can do to help strengthen the profession and help us veterans regain our enthusiasm? How can we communicate that enthusiasm to today's pharmacy students so that the profession remains vibrant tomorrow?

These are the questions that we all must work on separately and together as pharmacy professionals to ensure that pharmacy's future is a bright and satisfying one. Join us in this endeavor by joining NCAP.

Sincerely,

Kevin Lee Almond, RPh
President

...applying drug knowledge to improve health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We Need an IPA and the IPA Needs Us

by Bill Horton

I hope it is obvious to all of us by now that qualified and trained pharmacists can have an enormous impact on the health care of people with chronic illness; both in economic terms and health and well-being outcomes. The Asheville Project and other similar demonstration projects have clearly shown this to be true.

It is so obvious that the big players (and payers) have taken notice. They see the huge unmet need and the wheels are in motion to meet the need. It is obvious that the time for "demonstration projects" is over. It is now time for us as pharmacist providers to step forward and take control of our professional and economic destiny while we still can.

Demonstration projects are fine as far as they go. We can thump our chests and say, "Look at what a good job we can do when we are given the tools and opportunity." Chest thumping might feel good but it doesn't pay the rent. Pharmacists providing what we have come to call Pharmaceutical Care can make a difference. Now this activity must begin to produce significant revenue so that it can grow as an integral and universal part of our profession.

So how do we accomplish this? What mechanism is already in place to connect providers with payers; pharmacists with patients? The answer is an IPA.

An IPA (Independent Provider Association) is a business entity composed of pharmaCISTS (not pharmaCIES) who provide Pharmaceutical Care for reimbursement. It is a legal entity with a corporate structure governed by its stockholders through a board of directors and able to enter into contractual relationships with payers and other networks. It therefore facilitates the referral of patients and the revenue stream between payer and provider.

Why is this important? As independently acting providers we can never hope to do this efficiently individually. Hardly a week passes that I don't receive inquires from physicians who have heard by word of mouth about what we are doing with diabetes and asthma patients. The final question is always "How much does it cost?" and "Will insurance pay?" Notwithstanding the success of some of our colleagues across the state and nation in collecting from insurance for Pharmaceutical Care (usually through persistent billing, haggling with insurance companies, and complicated billing procedures), my answer to these inquires usually has to be " There is a fee (remember the time for demonstration is past) and right now insurance probably will not pay." Without an IPA there is just no simple and convenient way to connect the payer with the provider. Perhaps someday Pharmaceutical Care will become the norm of pharmacy practice and be widely recognized by payers as an integral and necessary part of health care. Sadly, this is not the case presently.

Secondly, an IPA sets standards for its provider members so that payers are insured of a high quality of service and the same or similar level of service no matter where the patient receives care. This lends great credibility and "clout" to the IPA in its marketing efforts.

At the same time, the IPA needs us. In order to successfully market Pharmaceutical Care to potential payers, the more universally available the service is, the more convenient for the payers' customers and therefore the more attractive to the potential payer.

If you are currently providing or would like to provide Pharmaceutical Care according to good standards and are interested in getting paid for it in such a manner that it becomes a livelihood enhancing revenue stream, you will soon be given (or may have already been given) the opportunity to join an IPA called the Piedmont Pharmaceutical Care Network, LLC. Despite the name, it is intended to be a statewide network. Discussions are currently underway with several statewide payers and the conclusion of contractual agreements is promising.

Please give serious and careful consideration to becoming a provider member. When all is said and done, there appear to be two main reasons you should join with your colleagues.

1. It is your best chance presently for patient referrals for which you will be paid.

2. It is our opportunity as pharmacists to control our own economic and professional destiny rather than to submit once again to the control of insurance companies.

To join, contact Bill Horton at the e-mail address listed below. ❖

About the Author...

Bill Horton is owner of PSA Beverly Hills Pharmacy in Asheville, NC. He can be reached via e-mail at horton@ioa.com

Changes to Continuing Education

In order to better serve our members NCAP will mail a special CE Supplement only to members who request it. CE is no longer published in the *North Carolina Pharmacist*, leaving more room for news of interest to all readers. As always, Continuing Education is available only to members. Members who would like to be added to the mailing list for CE should contact Teressa Reavis at teressa@ncpharmacists.org or call (800) 852-7343 ext. 27.

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Asheville Project Expands

by Barry Bunting & Michael Craig Cox

The pharmaceutical care project in Asheville continues to expand and currently has thirty-one pharmacists in 30 pharmacy locations providing pharmaceutical care services. These services are being provided for two of the largest employers in the area, the City of Asheville, and Mission St. Joseph Health System. Combined, the two employers have approximately 12,000 insured lives in their health plans.

As a result of the success of these programs, in January 2000, the City of Asheville inquired about the possibility of adding a disease management program for hypertension and hyperlipidemia. This program began in May and has 99 patients enrolled, bringing our total enrollment to 320 patients.

- 144 patients with diabetes
- 99 patients with hypertension &/or hyperlipidemia
- 77 with asthma

Implementation steps:

- A certificate program in hypertension/hyperlipidemia was offered in May 2000 through MAHEC with grant support from Parke-Davis and Pfizer.
- 27 pharmacists participated.
- Open enrollment was held on May 9th and 11th
- Patients filled out demographic, quality of life, disease questionnaire information.
- Blood pressures were measured.
- Blood was drawn for a lipid profile.
- Four patients were referred on an emergent basis to their physicians.
- Risk stratification was done using JNC VI and NCEP guidelines
- 1/3 of patients were identified as high risk
- Patients were scheduled for classes on cardiovascular risk reduction provided at Mission St. Josephs.
- Each patient was matched up with one of the community pharmacist providers who was trained in the certificate program.

The employees who enrolled in the hypertension/hyperlipidemia program were individuals who already knew they had these conditions. However, at least an equal number of employees have these conditions, but are unaware. The next step, which will take place this Fall, is to conduct hypertension and lipid screening for employees and dependents. This screening will be provided by several pharmacists and nurses at a variety of locations throughout the community for City employees. We anticipate this will result in an additional 50 to 75 patients being added.

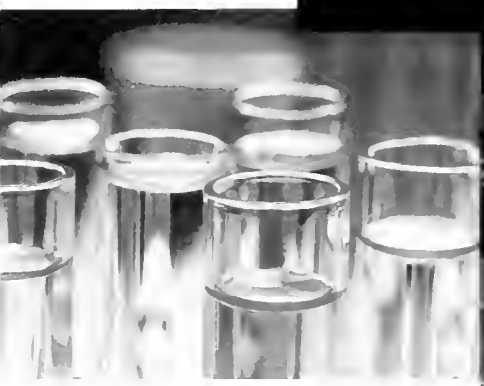
We have also started negotiations with the Mission St. Joseph's health plan administrators to promote the new program to them. However in this case, we are approaching the employer in an attempt to sell the service, rather than the situation with the City, where they came to us. If this is successful, we anticipate enrolment of at least 200 additional patients. However, as will be the case with most payers, Mission St. Joseph's is asking for a cost benefit analysis. So we are developing cost benefit projections related to reduced cardiovascular events. We do not expect the cost benefit will be as quick with cardiovascular events as it has been with asthma and diabetes so this will be a harder sell to payers.

We are also pursuing opportunities to expand these services to other employers in the area. However, before we go much beyond the 320 patients currently enrolled in our programs, there is a need for more administrative help and providers. There is a great deal of behind the scenes work necessary if pharmacists are to see more than just a handful of "cash customers".

The following are just a few of the steps we have learned are needed

Continued on page 20

In FAMILY,



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Ambulatory Care

Robot Eases Workload for Medical Center Pharmacy

by Greg Marks

Describe your overall practice and the services you provide.

Medical Center Pharmacy is a 5000 square foot independent pharmacy which is located in a county of approximately 45,000 people. While the bulk of our business is pharmacy services, we also offer a full line of over the counter medications, durable medical equipment, and cards and gifts. We have a second store, Medical Park Pharmacy, located in a physician's office building adjacent to the local hospital.

Medical Center Pharmacy offers compounding, 24 hour emergency prescription services for our customers, in-house charge accounts, drive-thru prescription service, prescription delivery, durable medical equipment sales and rentals, including billing medicare, medicaid, and private insurance, as well as free delivery and setup. In addition, we provide pharmacy services for the local health department, service a 100 bed rest home, and provide prescriptions and DME for the local hospice.

How did you determine the need for these services and how have you developed your practice to meet these needs?

We see our niche as providing the services that the chains can't or won't provide. Since most of our competition are chains, we have been able to do this successfully and continue to provide the personal "home-town" service that our patients want.

How do you use automation in your practice?

We were one of the first pharmacies in our area to computerize and have always tried to use the technology that was out there to our advantage. Presently we use QS/1 for our pharmacy, DME, accounts payable, and OTC point of sale. Getting our inventory under control through computerized ordering, and inventory control for the pharmacy and point of sale for our OTC's, was one of the best things we ever did. Our out of stock situation improved dramatically and has resulted in increased profits from less missed sales and we have much less overstock on the shelves. We've also been able to put in control methods that have decreased our chances of losing large amounts of money on third party prescriptions that were "MAC'ed" to almost nil. In the past, we had a problem with a prescription being refilled four or five times before we realized this was happening. In my opinion if you are already paying to have a computer system in your store, you owe it to yourself to learn how to make it do the maximum amount of work for you. Too many pharmacists I know pay a lot of money to buy a computer system and use it just to print labels instead of using its full potential. Our most recent addition has been the Script Pro robotic dispensing system. By using the Script Pro, we are able to fill the top 180-200 most commonly used drugs automatically without the technicians having to do anything other than keep the cells filled daily. This accounts for somewhere in the neighborhood of 40-50% of our daily volume. In addition to the labor savings, the safety features built into the Script Pro assure us that an error resulting from the wrong medication being put in the bottle or from a bottle being mislabeled will not occur for that 40-50% of our prescriptions.

What impact has automation had on your abilty to remain profitable and counsel patients?

We decided to look into the Script Pro after losing a full time pharmacist, to help us keep up the work load and take the pressure off of our remaining pharmacists. One thing we have learned after working with the robot for 6 months is that, in our practice at least, it does not really replace a pharmacist. What it does do is provide you with a technician capable of filling 40-60% of the scripts you fill and it never takes a day off and never has to have a break. This has enabled us to assign duties that the pharmacists used to have to do to our technicians. They have become more involved in managing inventory and entering scripts, which they have responded very well to, and have taken a more active part in making sure things go right in the pharmacy. In addition, the pharmacists have been able to perform all of their duties, including counseling, at a more relaxed pace than they would have without the addition of the Script Pro. We still feel that we are understaffed as far as pharmacists go, but the addition of Script Pro has made this situation a whole lot easier to deal with than it would have been otherwise.

What lessons have you learned as a result of this experience?

I learned not to expect everything to work smoothly on day one. Even though things worked fairly smoothly, just the sudden change in the way you do everything makes for a stressful adjustment period in a place that moves as fast as a pharmacy does. I also might change some small elements of our workflow design. I would encourage anyone who is going to install a Script Pro to talk to as many people who have one as possible and design your pharmacy area accordingly. Once it's in place, you can't just pick it up and move it.

What were your stumbling blocks?

It took a little bit of getting used to using the robot. We remodeled the whole pharmacy department in order to make room for it and changed our entire workflow. The first couple of weeks were a struggle but after everyone got used to the new flow of things, things fell into place. In addition to installing the robot, we moved the technician counter behind the Script Pro. This reduces distractions to the technicians while filling scripts and it keeps people from walking into each other, which was always a problem in our old pharmacy. We employed a color-coded basket system using plastic baskets purchased from a local grocery store. Each patient's order stays in its own basket as it moves from the prescription entering area, down the filling area to the Script Pro and checking station, then out to the clerks. While the changes we made in our workflow didn't necessarily make us faster (I don't think we were ever slow really), I feel that we are more accurate and efficient with our present system and I feel that our patient's have benefited.

Where are you heading now with your practice?

We are continually looking for new ways to expand our services and make things run more smoothly. We already use a basic voice mail system to avoid missed calls and are exploring expanding it to a 24 hour IVR system sometime in the future. Using faxed refill requests has cut down on calls in and out of the pharmacy and has been well received by physicians. We hope to continue using that and integrate it with our IVR so that requests can be faxed automatically, even when the store is closed. We are presently identifying the services we can provide easily with our present staff and establish a fee system for those services. In the future, we hope to offer more disease state management services. Several of our pharmacists are already working with Lifescan to be trained more in diabetes management. As always, we are trying to provide for our patients the services that they want. ❖

About the Author...

Greg Marks, RPh, is Pharmacy Manager at Medical Center Pharmacy in Rockingham, NC. He can be reached at 910.997.4471 or gmarksunc.earthlink.com

120th Annual NC Pharm

September 7-8, 2000, Wilm

The NCAP Annual Pharmacy Convention was held September 7-8 in Wilmington, NC. Pharmacy professionals from across the state attended the conference which offered nationally known speakers, cutting edge CE programs, and great networking opportunities.

On Thursday an Awards Ceremony was held to honor those who have excelled in promoting NCAP and the profession of pharmacy.

Winners of the 2000 NCAP Election were announced and they are as follows:
President-Elect: Fred Eckel
Treasurer: Joseph Johnson
New NCAP Board Members: Jennifer Burch, Mark Gregory

Also announced were the election results of the Acute Care Practice Forum which are as follows:
Chair: Lynne Alexander
Chair-Elect: Jane Younts
Executive Committee Members: Craig Coumbe, Anna Garrett, Julie (T.J.) Gouveia-Pisano, and Ellen Williams.

The Wyeth-Ayerst Bowl of Hygeia Award was presented to Gene W. Minton (l), and Kevin Almond (r) received the Bristol-Myers Squibb Pharmacy Leadership Award, the Merck Pharmacy Achievement Award, and the NCAP President's Award.

Award recipients at the 2000 Annual Pharmacy Convention: (l to r) Joseph S. Moose, recipient of the Pharmacists Mutual Companies Distinguished Young Pharmacist Award, Benny Ridout, recipient of the UNC School of Pharmacy Distinguished Service Award, Bill Burch, who accepted the DuPont Innovative Pharmacy Practice Award on behalf of he and his daughter Jennifer Burch (not pictured), Keith Elmore, recipient of the Don Blanton Award, and Alan F. Boyd, recipient of the NCAP Presidential Award.

Award Recipients

Campbell University Preceptor of the Year
Monty Yoder

UNC Preceptor of the Year
Mary Taeubel

UNC School of Pharmacy Distinguished Service Award
Benny Ridout

Bristol-Myers Squibb Pharmacy Leadership Award
Kevin L. Almond

Merck Pharmacy Achievement Award
Kevin L. Almond

NCAP President's Award
Kevin L. Almond

National Community Pharmacists Association Pharmacy Leadership Award
William L. Harris, Jr.

McKessonHBOC Leadership Award
William L. Harris, Jr.

Wyeth-Ayerst Bowl of Hygeia Award
Gene W. Minton

Pharmacists Mutual Companies Distinguished Young Pharmacist Award
Joseph S. Moose

DuPont Innovative Pharmacy Practice Award
Central Pharmacy, Durham NC
William Burch and Jennifer Burch

NCAP Presidential Award
Alan F. Boyd

Don Blanton Award
W. Keith Elmore

cy Convention Highlights

n Hilton, Wilmington, NC

Members of the Fifty Plus Club who attended the awards ceremony included (l ro r) Holland Braudis "Dusty" Leonard, Jr., Ernest John Rabil, Charles Flournoy Jones, and Ellis Murphy Fincher.

William L. Harris, Jr. received the National Community Pharmacists Association Pharmacy Leadership Award and the McKessonHBOC Leadership Award.

Monty Yoder was named Campbell University Preceptor of the Year. Mary Taeubel (not pictured) was the University of North Carolina Preceptor of the Year.

Golf Tournament Results

On Friday afternoon more than 50 conference attendees participated in a golf tournament at Magnolia Greens. The winning team consisted of Phillip Crouch, Sharon Cardinal, Ben Pell, and Marion White. The Longest Drive was hit by Chuck Fenn. Randy Taylor won Closest to the Pin.

Fifty Plus Club

Recognizes members who have been licensed pharmacists for 50 years.

Donald Leon Bennett
Jimmie Claxton Bowers
Arch Lyle Davis
William Taylor Dement
Clarence McDonald Ferguson, Jr.
Ellis Murphy Fincher
Hunter Oakley Gammon
Windfield Scott Gardner
Lucille Earl Horner
Wallace Allen Johnson
Walter Phillip Johnson
Charles Flournoy Jones
Edward Rinehart Kinard, Jr.
Holland Braudis (Dusty) Leonard, Jr.
Thomas Wayne Mitchell
Marina Pettway C. Moseley
Rex Alan Paramore
Ernest John Rabil
John McMillan Rancke
William Moss Salley, Jr.
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Virginia Callahan Shigley

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Comparison of Omeprazole, Lansoprazole, Rabeprazole, and Pantoprazole

by Mary L. Townsend

Currently there are four proton pump inhibitors (PPIs) available on the market in the United States, omeprazole (Prilosec ®, AstraZeneca), lansoprazole (Prevacid ®, Takeda-Abbott), rabeprazole (Aciphex® Janssen/Eisai), and pantoprazole (Protonix ®, Wyeth-Ayerst). A comparison of these agents demonstrates that there are very few differences between them. Areas where differences are seen include their effect on the cytochrome P450 system , FDA indications, available dosage forms, and cost. The cost differences between the agents are highly dependent on institution contracts. Based on clinical trials to date between the agents, it appears that rabeprazole and pantoprazole can be considered as alternatives to omeprazole and lansoprazole, but more clinical studies need to be performed in order to demonstrate any clinically significant differences between the agents. This article will serve as a review to identify the similarities and differences between the agents in more detail.

Structurally, all four agents are substituted benzimidazoles with different substitutions on the pyridine and benzimidazole rings.[1,3] They inhibit the gastric hydrogen-potassium ATPase pump at the secretory surface of the gastric parietal cell by covalently binding to the pump, thus suppressing the final step in gastric acid secretion.[1,2,3,4,5,6] All of the agents are activated to sulfonamides in an acidic environment. Rabeprazole is activated at a higher pH than the other agents.[4] Therefore, it has been suggested that rabeprazole may be less acid stable than other PPIs, however, the clinical significance of this is not certain.[4] In their activated forms they bind to cysteine residues in a subunit of the proton pump.[4] Pantoprazole is the only agent of the four that binds selectively to the cysteine residues of the pump, the other agents also bind to other cysteine residues not associated with acid-inhibiton.[7,8] In vitro, the binding of rabeprazole to the gastric proton pump has been shown to be partially reversible, while the other agents bind irreversibly to the gastric pump. The clinical significance of both of these differences is being investigated. Rabeprazole has a shorter duration of inhibition (2 days) versus omeprazole (4 days), a faster onset of action than both omeprazole and lansoprazole, and takes a shorter time to reach maximal antisecretory effect (2-3 days versus 4 days) than omeprazole, however, the clinical significance of these differences is uncertain.[4] No clinically significant differences have been noted/proven between the agents in increasing gastrin concentrations. They all inhibit basal and stimulated acid secretion in a dose dependent fashion.[4] All of the PPIs block urease activity of *Helicobacter pylori* and help in combination with antibiotics to eradicate *H.pylori* gastric infections.[4]

All four PPIs are metabolized extensively through the liver and eliminated in the urine and feces.[1,2,3,4,5,6,8,9] Omeprazole, lansoprazole, rabeprazole, and pantoprazole are metabolized by the cytochrome P450 isoenzymes 2C19 and 3A4.[10,11,12] However, rabeprazole and pantoprazole have a lower affinity than both omeprazole and lansoprazole for the cytochrome P450 system.[1,2,3,4,9,10,11,12] Rabeprazole is mainly metabolized through nonenzymatic reduction. The differences between the agents in terms of affecting the cytochrome p-450 system can be seen in terms of their dissimilar drug interactions.[1,2,3,4,9,10,11,12] As can be expected, since pantoprazole and rabeprazole have less effect on the cytochrome P450 system, they are associated with less drug interactions than omeprazole and lansoprazole. Omeprazole has the most potential for drug interaction of the PPIs.[4,10]

The side effect profiles of the PPIs are similar with the most common being headache, diarrhea, constipation, nausea, and pruritis.[12] All of the agents have been well-tolerated when used for extended periods of time and to date, omeprazole and lansoprazole have not been associated with an increased risk of gastric cancer or atropic gastritis.[4,12] It is presumed that this will also be the case for pantoprazole and rabeprazole.

The PPIs are inactivated when exposed to gastric acid and are formulated as either enteric-coated tablets (pantoprazole 40mg and rabeprazole 20mg) or gelatin capsules containing enteric-coated microspheres (omeprazole 10mg,20mg,40mg and lansoprazole 15mg and 30mg).[4] It is best to take PPIs 30 minutes before breakfast and 10 to 12 hours after the first dose if a second dose is required. The tablets and the capsules should not be crushed when administered.[4] The granules of omeprazole and lansoprazole may be given through a nasogastric tube by making a suspension in 8.4% sodium bicarbonate or by giving the granules with orange/apple juice or apple sauce.[4] None of the agents are available in an oral liquid formulation, but an injectable form of pantoprazole is expected to be approved by the FDA soon.

There have been quite a few clinical comparisons of the new agents rabeprazole and pantoprazole to omeprazole and lansoprazole. In general, based on the clinical studies to date, the PPIs have superior efficacy over H2 blockers in treating peptic ulcer disease or GERD, but are not significantly different between themselves.[4] In looking at of several different double-blinded, randomized, controlled, clinical trials, lansoprazole 15mg, pantoprazole 40mg, rabeprazole 20mg, and omeprazole 20mg a day had similar ulcer healing rates at weeks 4 and 8.[4,7,13] For *H. pylori* eradication, pantoprazole and rabeprazole when combined with antimicrobial agents have produced similar eradication rates as omeprazole and lansoprazole when used at the recommended *H.pylori* eradication dosages.[4,14] For the treatment of GERD, omeprazole 20mg, lansoprazole 30mg, pantoprazole 40mg, and rabeprazole 20mg once a day provided relief of symptoms and also healed the esophagus in 4 to 8 weeks.[4,7,15] The only noted difference between the PPIs in the GERD studies was that lansoprazole 30mg and rabeprazole 20mg once a day provided a more rapid relief of heartburn when compared to omeprazole 20mg once a day in the first two days of treatment.[4,15] There are not many studies comparing the PPIs in the management of Zollinger-Ellison syndrome, GI bleeding, or prevention of acid aspiration, but it is anticipated that the newer agents, rabeprazole and pantoprazole, will provide similar efficacy in these areas to lansoprazole and omeprazole.[4]

Note: The following tables are available: Comparing drug interactions and cytochrome P450 effects, FDA indications, approved dosing, and comparative clinical studies with rabeprazole and pantoprazole upon request. ❖

About the Author...

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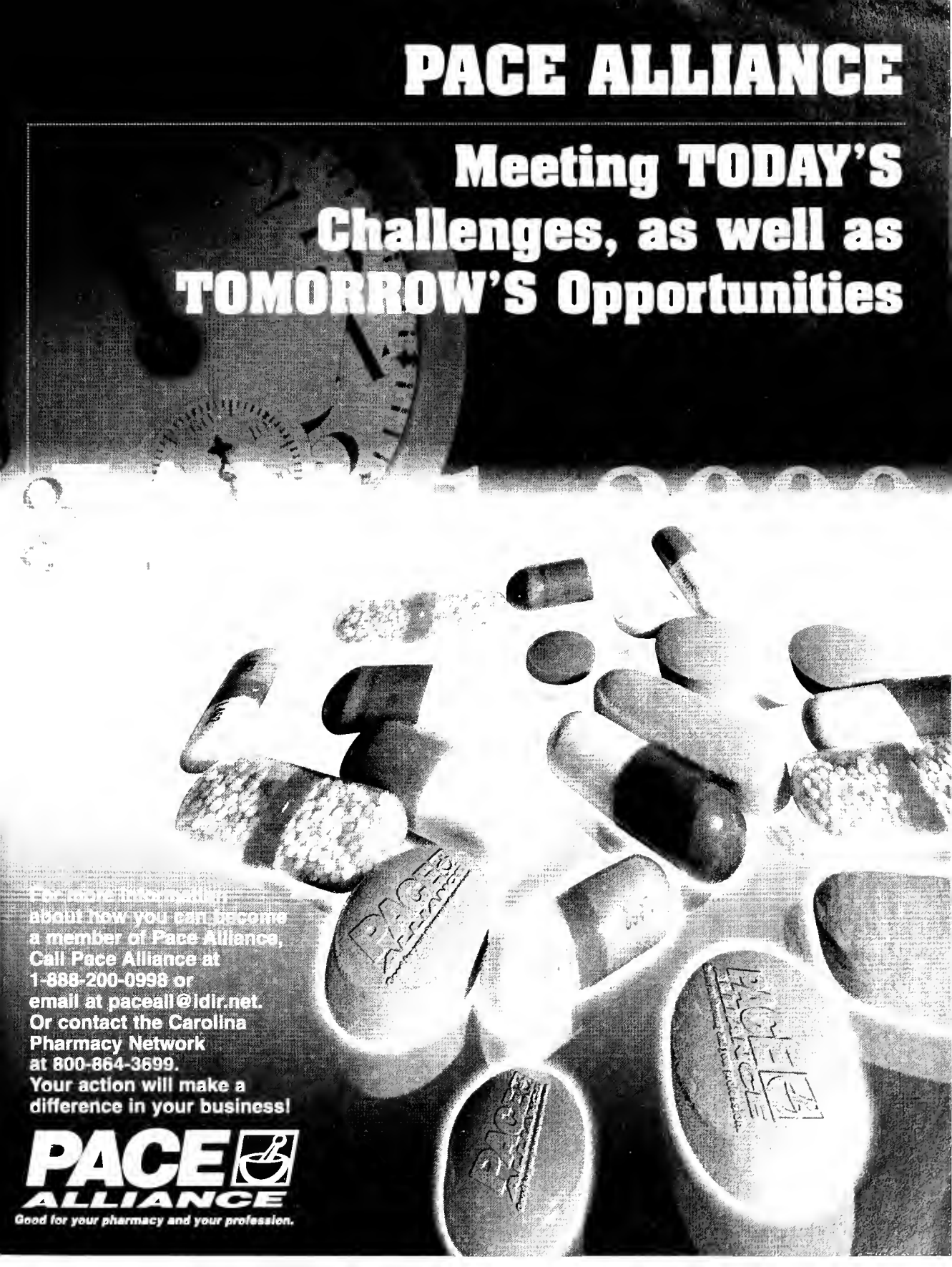

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Revolutionizing Community Pharmacy...One Resident at a Time

Over the past several years, community pharmacists have begun to expand their role by providing enhanced patient care through education, disease state monitoring/management, screening programs, and other clinical activities. This expansion is related to growth of community pharmacy residency programs. The history of our profession reveals a similar trend that developed 20 years ago, when pharmacy residencies were introduced into health-systems. These residencies have fostered major growth of clinical activities, without which we probably would not have the strong presence of clinical pharmacists in the health-systems of today. Certainly, our profession now faces another defining period in its history as community residencies pave the way for pharmaceutical care to be the standard of practice for pharmacy in the U.S.

by Lori E. Colemon

Community Pharmacy Resident Profiles

Valerie Britt, PharmD, is a 2000 graduate of the University of North Carolina at Chapel Hill. She is currently doing a community residency with Kerr Drug / Campbell University School of Pharmacy Enhanced Pharmaceutical Care Center (EPCC) in Benson, NC. Valerie plans to work closely with diabetic patients and evaluate the outcomes of a community pharmacist-based diabetes education program. She will also be involved in implementing other disease state programs, as well as a variety of community outreach programs in preventive health. Valerie will spend three weeks traveling across the U.S. with the Women's Solution (Bone Density) Tour sponsored by *Health Magazine* as part of her community screening experience. Her goal is to demonstrate the value of pharmaceutical care to providers, patients, and third-party payers.

Lori Colemon, PharmD, is a 2000 graduate of the University of North Carolina at Chapel Hill. She is currently the community pharmacy resident at the Kerr Drug / UNC School of Pharmacy Enhanced Pharmaceutical Care Center in Chapel Hill. She pursued this residency position to expand her interest in chronic cardiology conditions such as hypertension, heart failure, and dyslipidemias by developing and implementing community pharmacy-based patient care programs in these areas. She also plans to recruit and educate patients with asthma for the purpose of optimizing clinical, humanistic, and economic outcomes. Lori will also be completing a longitudinal rotation with NCAP and NCCPC during which she will be developing an Asthma Toolkit and participating in other organizational activities. Also, she will be the Teaching Assistant for the OTC course at the UNC School of Pharmacy.

Beth DeWitt, PharmD, is a 1999 graduate of Purdue University School of Pharmacy. Having recently completed a Pharmacy Practice Residency at Mission St. Joseph's Health-System in Asheville, Beth is now beginning her second residency program in Community Pharmacy. She is the first resident in a program born of collaboration between the City of Asheville, Kerr Drug, Mission St. Joseph's Health-System, and PSA Beverly Hills Pharmacy. The residency, sponsored in part by the Institute for the Advancement of Community Pharmacy, is multi-faceted. Beth's primary responsibilities will involve working with the Asheville Project in a variety of practice settings, to assist pharmacists in providing pharmaceutical care to patients with diabetes, asthma, hypertension, and hyperlipidemia. The residency will also involve working with the Kerr Drug Enhanced Pharmaceutical Care Center coming soon to Asheville.

Stefanie Ferreri, PharmD, is the community pharmacy practice resident at Ward Drug Co. in Nashville, NC. She earned her pharmacy degree from the University of Connecticut in 1997 and Pharm.D. from Campbell University in May 2000. Her interests and specialties include diabetes, cardiology, ambulatory care and academia. She completed a pharmacy practice residency at the University of Connecticut Health Center and has worked for CVS and Duke University Medical Center. Her residency activities will include dispensing, counseling, disease state monitoring, precepting students and compounding. She will participate in collaborative practice activities with Rocky Mount Family Medical Center in lipid and diabetes education and join the Open Door Clinic in Raleigh to help educate underprivileged diabetic patients.

Leigh Foushee, PharmD, is a 2000 graduate of Campbell University School of Pharmacy and is the community resident at Central Pharmacy in Durham. Leigh decided to pursue this residency program because of her interest in community-based disease state management programs. Her primary focus will be hypertension education and monitoring, and other interests include diabetes, dyslipidemias, and asthma. It is her hope that by educating the public about these diseases she can improve compliance and patient outcomes. In recognition of the pharmacy's Osteoporosis Month, September, Leigh is working on a bulletin board that will increase public awareness of the incidence and danger of osteoporosis. Patients can make appointments for an assessment of their personal risk factors and to learn what they can do to maintain good bone health and prevent osteoporosis.

A Solid Start

On Thursday, July 6, 2000, the inaugural Community Pharmacy Residency Retreat was held at the Aqueduct Conference Center in Chapel Hill. The purpose of the retreat was to welcome in the 2000-2001 residents—whose programs began July 1, to establish a consistent standard for the community pharmacy residency programs across our state, and to discuss the accreditation process for community pharmacy residencies.

The day began with a discussion about methods to establish resident and site needs, development and accomplishment of short and long-term goals, and effective tools for evaluating the resident and preceptor competencies and performance. Discussion of resident, preceptor, and site qualifications necessary to accomplish established objectives rounded out the morning session.

A working lunch was the kick-off for a presentation of residency accreditation criteria. The American Society of Health System Pharmacists (ASHP), as the accrediting association for health-system pharmacy practice residencies, has partnered over the past year with the American Pharmaceutical Association (APhA) to establish an accreditation process for community pharmacy residencies. Discussion centered around the four core focus areas of the Joint APhA/ASHP Accreditation Standard: practice foundation skills, direct patient care objectives, drug information and drug policy development, and practice management. The community pharmacy residents and preceptors were tasked with identifying learning objectives that would serve to define their individual programs and sites. The afternoon concluded following a conference call with Anne Burns of the APhA, who summarized key points regarding community pharmacy residencies and answered questions from the group.

The Retreat was hosted by Kerr Drug and sponsored by the Pharmacy Network Foundation of North Carolina.

North Carolina's community pharmacy residents and preceptors look forward to 2000-2001 as a year of opportunity. Together, they will design, develop, and implement programs and services that will help to re-define community pharmacy-based patient care and revolutionize community pharmacy...one resident at a time. ❖

About the Author...

Lori E. Colemon, PharmD, can be reached via e-mail at lcolemon@hotmail.com.

Leaders Gather at First Annual Residents Conference

Current leaders meet future leaders. That is the best way to describe a meeting between pharmacy residents, residency directors, and prominent pharmacy leaders from around the state. This meeting was North Carolina's first annual Residents Conference held August 11 in Chapel Hill. The day offered several opportunities for residents to learn about leadership qualities and how to become a future pharmacy leader.

by Beth DeWitt

First, a communication insight activity was led by NCAP's Executive Director Dan Garrett. Garrett led attendants in reviewing a personality-type test which was completed by participants prior to the conference. As always, it was interesting to see just how well the tests matched your true personality. The discussion involved much laughter, several jokes, and many nods of agreement. Hopefully, each participant could take this information and learn not only a little bit more about themselves, but also about the people they will be working with over the next year.

This was followed by a group of presenters offering advice on how to become involved in pharmacy leadership. Speakers included: Tina Brock (UNC), Bill Campbell (UNC), Steve Dedrick (DUMC), Stephen Eckel (UNC Hospitals), Mark Gregory (Kerr Drug), Steve Kearney (Pfizer), Jim McAllister (UNC Hospitals), Benny Ridout (North Carolina Medicaid), Ron Small (WFUBMC), and Larry Swanson (Campbell University). A resounding piece of advice was "find a mentor, be a mentor." Other speakers emphasized the importance of networking, getting involved with committees or organizations, and just simply taking a chance.

The next group of presenters addressed involvement in their respective pharmacy organization. The speakers and the organizations were: Kevin Almond for NCAP, Herb Patterson for ACCP/TCCP, Rebecca Chater for APhA, Bruce Canaday for ASHP, Whit Moose for NCPA, and Ross Brickley for ASCP. This group shared information about what their organizations do and how people can become involved.

The final speakers of the afternoon included Michelle Fritsch of Alamance Regional Medical Center, T.J. Gouveia-Pisano of Duke University Medical Center, and Eric Locklear of Southeastern Regional Medical Center. These presentations included answers to such questions as "What is the most important aspect of a residency?" "What can you do as a resident that is hard to do in a job?" And "What do you wish you had done more of as a resident?" Once again great advice was offered and residents were encouraged to take advantage of each and every experience that a residency has to offer.

David L. Burch, PharmD, Primary Care Pharmacy Resident at W.G. (Bill) Hefner VA Medical Center in Salisbury, NC and Darren Drew, PharmD, Hospital Pharmacy Practice Resident at NorthEast Medical Center in Concord, NC take a break during the Residents Conference.

The day concluded with a barbecue picnic which provided time to socialize and discuss the afternoon's events. The conference was a great opportunity for residents to learn more about leadership, but more importantly, to develop friendship among fellow residents and leaders from around the state.❖

About the author...

Beth DeWitt, PharmD, is a Community Pharmacy Resident in Asheville, NC. Her residency is with the Asheville Project and Kerr Drug, Inc. She can be reached at badewitt@yahoo.com.

Traineeships Provide Unique Opportunities

by Gianna Bryan

We all want to make a tangible difference for our patients. For many years, the profession of pharmacy has been evolving from that of "lick & stick, count & pour" to a model where the pharmacist is a vital part of the healthcare team. In order to bridge the gap between the perception of the pharmacist as a dispenser of pills to a dispenser of information, we have recognized the need to become more proficient at participating in the clinical environment. The American Society of Consultant Pharmacists Research and Education Foundation traineeships provide unique opportunities for pharmacists to hone their clinical assessment skills and focus on specific disease management strategies that provide the skills needed to become part of the clinical team and ultimately improve patient outcomes.

Alzheimer's/Dementia Traineeship

Participants in this traineeship are provided with extensive information on the diagnosis, symptoms, evaluation, treatment, monitoring, and management of patients with Alzheimer's disease. Patients with various stages of dementia are evaluated to illustrate the range of presentations of the disease process. Experiential instruction is given in evaluating and monitoring the symptoms and progression of the disease and effects of drug therapy.

Disease Pharmacotherapy Traineeship

The Disease Pharmacotherapy traineeship prepares pharmacists to provide a high level of pharmaceutical care to patients with complex concomitant disease states. While the experience focuses on heart failure and osteoporosis, many other disease states and conditions are encountered.

Geriatric Psychiatry/Behavioral Disorders Traineeship

This traineeship prepares pharmacists to provide a high level of pharmaceutical care to patients with psychiatric and behavioral disorder. This is accomplished through opportunities to observe and participate in the development of drug and drug-free treatment plans for patients. Participants gain considerable knowledge of the diagnosis and assessment of psychiatric and behavioral disorders, recognition and appropriate treatment of common comorbid conditions, and the significant role of caregivers as members of the treatment team. Pharmacists are encouraged to become advocates for the appropriate care and treatment of persons with psychiatric and behavioral disorders in the settings where they practice.

HIV/AIDS Pharmacotherapy Traineeship

Participants in this session are given extensive information on the diagnosis, evaluation, treatment, and management of HIV/AIDS and its complications. Training is provided to enable participants to evaluate and monitor the symptoms and progression of the disease as well as the effects of drug therapy.

Parkinson's Disease Pharmacotherapy Traineeship

Participants are given the opportunity to participate in the development of comprehensive treatment plans for Parkinson's disease patients. This is accomplished through didactic and hands-on evaluations. Focuses of the experience include evaluation of alternative clinical diagnoses, control of medication adverse effects, drug interactions, dementia and depression, adjustment of therapy, and use of adjunctive medications.

Wound Care Traineeship

Pressure sores are an all too common occurrence. This traineeship uses a multidisciplinary model to help consultant pharmacists acquire the knowledge and skills necessary to provide pharmaceutical care to patients with or at risk for pressure sores. The Agency for Health Care Policy and Research guidelines for the assessment, prevention, and treatment of pressure ulcers are a focus of the experience, with their appropriate application being stressed. State-of-the-art products are used to lessen risk factors. Participants are also trained to educate other health professionals, caregivers, and patients on wound care and prevention.

How To Become a Traineeship Participant

Participants in the traineeships are selected on the basis of applications submitted to the ASCP Foundation. In addition to completing the short application form (available from the Foundation at www.ascpfoundation.org or 703-739-1300) each applicant also submits a resume or curriculum vitae as well as a letter of support from the applicant's employer. Further, each applicant contributes an essay highlighting the reasons he or she is interested in participating in the traineeship and how they expect the training to enhance their practice.

Misconceptions abound about the qualities pharmacists must possess to be a traineeship participant. Although a pharmacist must have a minimum of a few years of experience, it is not necessary to be in a management, teaching, or a research-oriented position. You do not have to have a long list of articles published or scores of presentations under your belt. Kathy Cameron, RPh, MPH of the ASCP Research and Education Foundation stresses that the selection committees are not looking for "super pharmacists." Rather, the emphasis is placed on what the applicant will do with the knowledge they gain once the traineeship is over. The goal is to create patient advocates while increasing the participant's involvement in pharmacy.

Nuts and Bolts

Once selected for a traineeship, participants are responsible for making travel arrangements and coordinating time off from their normal job requirements. Lodging is coordinated through the ASCP Foundation, with the weeklong hotel stay provided at no cost to the trainees through the generous support of a grant from the sponsoring drug company. Their financial support also provides reading and lecture material for the traineeship.

While all traineeships are structured differently based on individual subject and site requirements, there are some basic similarities. The day begins as participants are transported from their hotel to the traineeship site. Didactic and experiential experiences follow, including lectures, small group discussion, question and answer periods, hands-on patient assessment and interaction, disease-specific support groups, and rounds with the medical team. Depending on the traineeship, participants may move between different sites during the day. There may be more discussion, lectures, or group meetings in the evenings.

Two case consults are required after the traineeship is over and should focus on the application of the skills gained during the traineeship. Past trainees agree they "hit the ground running" towards the patients with the disease states they learned about during their traineeship, eager to apply their new-found knowledge to work with their own patients. The participant selects two of these patients to submit as case consults to the Foundation, and these consults are ultimately forwarded to the traineeship preceptors.

One benefit of traineeships that should not be overlooked is the opportunity to spend time in the company of other pharmacists who are interested in optimizing quality patient care. There are plenty of occasions to discuss approaches to consulting, treatment options, and common concerns. This networking extends into membership in the traineeship list-serve after the traineeship is completed. This list-serve is a service of the Foundation that allows members to share information.

The ASCP Foundation recently expanded the traineeships' availability from consultant pharmacists to pharmacists in any practice setting. Many of us, whether we practice in the retail, ambulatory, or hospital setting, work with a large population of elderly patients. These valuable educational opportunities can help us do our jobs better. So what are you waiting for? There is a traineeship out there that will revolutionize your practice. Contact the ASCP Research and Education Foundation today for an application (www.ascpfoundation.org or 703-739-1300). ❖

About the Author...

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2000 Calendar

December 3-7: Annual American Society of Health-System Pharmacists (ASHP) Midyear Clinical Meeting and Exhibits, Las Vegas, Nevada. Visit www.ashp.org for more information.

November 1-4: American Society of Consultant Pharmacists (ASCP) Annual Meeting and Exhibition, Boston, MA. Visit www.ascp.com for more information.

Please visit the NCAP website at www.ncpharmacists.org for more information on upcoming meetings and events.

"Asheville Project" Continued from page 9

to have a large scale pharmaceutical care program:

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- Develop patient enrolment and consent forms.
- Find disease specific questionnaires that can be used as valid outcomes tools.
- Locate data analysis resources to do financial, clinical, and humanistic outcomes to prove the value of the services.
- Locate pharmacists who are motivated to provide the services.
- Arrange for certificate training of pharmacists.
- Work with pharmaceutical manufacturers to obtain support for the program.
- Create linkages with educators and physicians in the community.
- Work with employer to enroll patients and obtain necessary laboratory testing.
- Schedule enrolment meetings and set up an ongoing enrolment process.
- Link individual patients with individual pharmacist providers.
- Facilitate consistent documentation and billing.
- Work with employer's Pharmacy Benefits Management companies and Third Party Administrators to coordinate prescription benefit and data collection.

Obviously these are not things that most pharmacists, even those who are highly motivated to provide pharmaceutical care services, have either the time or interest in doing.

In order to meet these growing administrative needs we have asked for the assistance of the Piedmont Pharmaceutical Care Network (PPCN). PPCN is an Independent Provider Association that has been incorporated in Greensboro to specifically address the needs of providers who simply want to provide pharmaceutical care services for patients and be paid for them. We are in the process of sharing our "Asheville Project" experience with them, working to blend our processes, and make it easier for others who want to become more directly involved in patient care.

If you would like additional information about the Ashevile Project or PPCN, please contact Barry Bunting at the address listed below. ❖

About the Authors...

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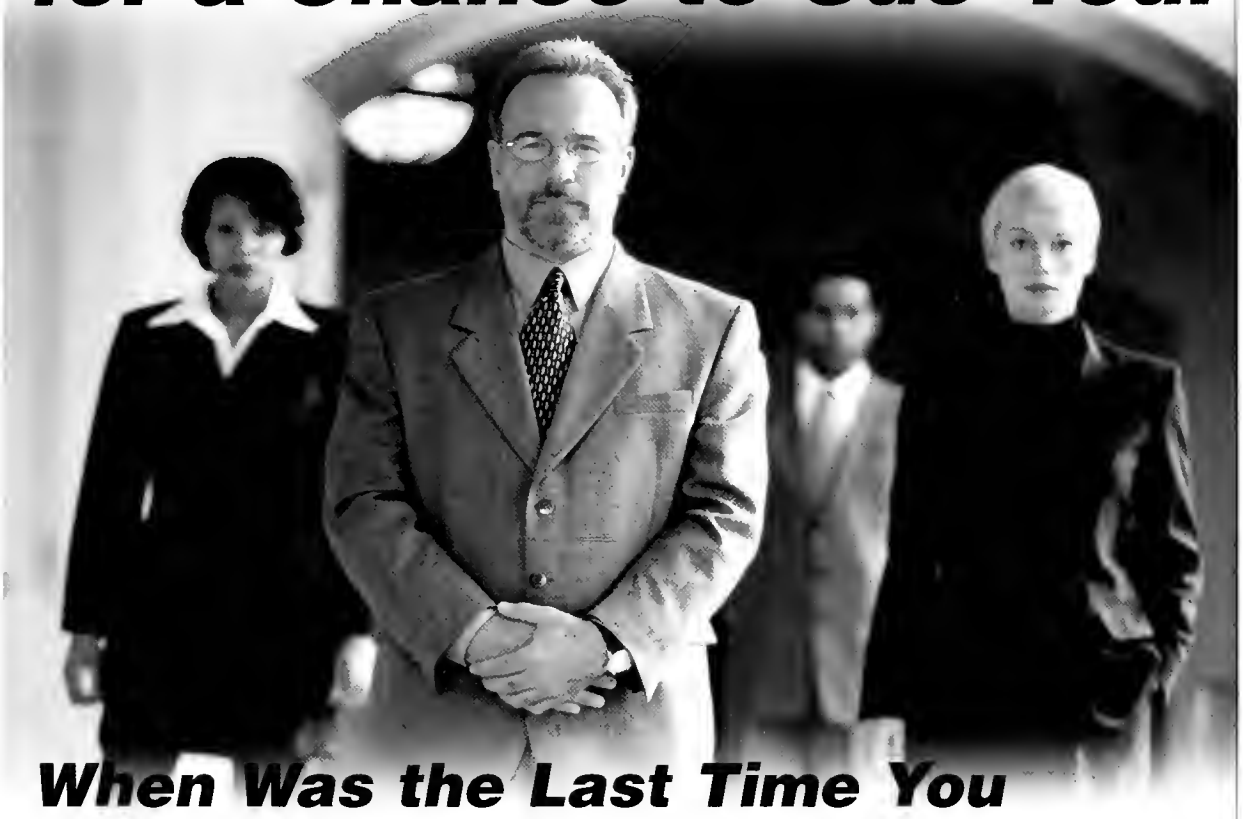

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North Carolina Pharmacist

Volume 80, Number 6 ...applying drug knowledge to improve health November/December 2000

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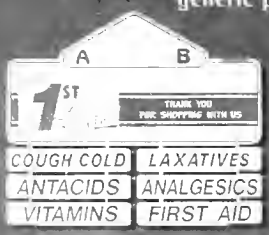

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North Carolina Pharmacist

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Inside

North Carolina Association of Pharmacists
109 Church Street
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phone: (919) 967-2237
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Kevin L. Almond
President, NCAP

Dear NCAP Member,

It's now been a year since the North Carolina Association of Pharmacists was formed and close to three years since beginning the long and arduous process of uniting NCPhA, NCSHP, NCASCP, and the NCRPA. In retrospect, it is easy for me to say that it was, and is, the right thing to do.

This past year we sponsored over 472 hours of programming which resulted in more than 20,452 hours of quality continuing education credits for pharmacists across the state. We have had over 75 exhibitors, showing us the newest technology available for managing processes, as well as the latest drug entities available for every disease state under the sun. We have had committee meetings, too numerous to count, setting the pace for our profession. Some of these may have affected you directly, while others may have affected your colleagues, classmates, or friends in a different practice setting. We passed a "Clinical Pharmacist Practitioner Act," which allows pharmacists to enter into protocol agreements with physicians, giving pharmacists greater opportunity to affect patient care, while utilizing their extensive knowledge base and education. We worked closely with the Medical and Pharmacy Boards to develop rules for CPP's and you can review these rules on the NCAP website at www.ncpharmacists.org.

We have had many other accomplishments during the past year, but it's time to live in the present and recognize that we have another opportunity to come together and let our voices be heard. Low prescription reimbursement from third-party payers is hammering our colleagues practicing in community settings. While it is easy for them to turn away ridiculous plans such as United Health Care's Average Wholesale Price less 23% and no fee, it is much harder to turn away long time customers—loyal customers that have relied on their pharmacist's care year in and year out—purely on a revenue basis. The community pharmacists propose a Patient Care Bill to allow pharmacists to compete in a free market and charge various co-payments, as decided upon by each community pharmacist. This allows the patient to decide the amount they are willing to pay for pharmaceutical services. Should a patient decide to go to a pharmacist based on lower co-payment, then he or she would be allowed to do so. Consequently, if a patient desires to pay a higher co-pay in order to get what is perceived as greater value from the pharmacist of their choice, then they would be free to do so. Patients would be allowed to make decisions, pharmacists would be allowed to charge "usual and customary" co-payments in keeping with their services.

The Patient Care Bill will likely have opposition, based on a potential rise in co-payments, yet I think it's hard to argue against putting decision-making in the hands of the person who benefits most—the patient. Students at both schools of pharmacy will have an opportunity to be involved in the fray during Pharmacists' Afternoon in the Legislature (PAL). Every NCAP member can also be a part of this, either through participation in PAL or through writing or calling his or her legislator and asking for support of the Pharmacist Patient Care Bill. I hope you will stand with our community pharmacist colleagues when the long session of the North Carolina General Assembly begins January 24, 2001.

Sincerely,

Kevin Lee Almond, RPh
President

...applying drug knowledge to improve health

2000 Recipients of the "Bowl of Hygeia" Award

Wyeth-Ayerst Laboratories takes great pride in continuing the "Bowl of Hygeia" Award Program developed by the A. H. Robins Company to recognize pharmacists across the nation for outstanding service to their communities. Selected through their respective professional pharmacy associations, each of these dedicated individuals has made uniquely personal contributions to a strong, healthy community which richly deserves both congratulations and our thanks for their high example.

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The Future of Pharmacy Depends on Political Grass Roots Efforts

Ross Brickley
Chairperson
Legal & Public Affairs

There are political initiatives during the upcoming year at both the Federal and State levels such as the "Medicare Out-Patient Drug Benefit" that if passed may significantly impact the practice of pharmacy. In addition, at a time when pharmacists are attempting to become statutorally recognized as "health professionals" (to facilitate billing for drug therapy management), we are experiencing on-going attempts by third-party payers to continue to decrease reimbursement associated with dispensing of medications. Now is an opportune time for pharmacists to become politically involved in proactively shaping the future of pharmacy! It is not difficult or time-consuming to take the first step. The process can be as simple as contacting your State House of Representative or Senator via telephone or e-mail to express your support or concern regarding proposed legislation. Grass roots legislative contacts have been proven to impact how elected officials vote! NCAP is prepared to keep you informed on legislative issues as well as serve as a leader in implementing grass roots efforts.

Under the "unified" umbrella of NCAP, the Legal and Public Affairs Council (L & P) consists of representatives from independent and chain community pharmacy; hospital pharmacy; pharmacy technicians; long-term care pharmacy; the Board of Pharmacy, and State Government. Through consensus building and open communication, the foundation has been established to have a single and effective voice in dealing with legislative items that impact any area of pharmacy.

The Legal and Public Affairs Council has been working this year on the Clinical Pharmacist Practitioner Rules (i.e. collaborative practice) as well as dealing with payment issues surrounding the N.C. State Health Plan. During this time, the Council has also been diligently preparing for the "long session" of the N.C. State Legislature that convenes in January 2001. Our agenda includes, but is not limited to, the following:

(1) **Pharmacist Patient Care Bill**—A bill to establish fair and equitable reimbursement for all pharmacies participating in prescription drug plans.
(2) **Pharmacy Technician Bill**—An act to define pharmacy technicians and allow the Board of Pharmacy to register them.
(3) **Pharmacist Provider Bill**—A bill to get pharmacists or clinical pharmacist practitioners recognized, where appropriate, as "health care professionals."
(4) **State Health Plan & Medicaid Reimbursement Initiative**—An effort to proactively impact the fees that pharmacists are paid for in serving these populations.
(5) **Board of Pharmacy**—This initiative centers around the long-term savings that the Board can experience by purchasing land rather than incurring on-going rent as a tenant.

To step forward with a unified legislative voice, NCAP will be sponsoring "Pharmacists' Afternoon in the Legislature" (PAL) on March 13, 2000. PAL will provide attendees a one hour orientation about the legislative agenda so that pharmacists will be prepared to meet with their local Representatives (Please fill out and return, via fax or mail, the form on page 7. If you need assistance scheduling your appointment, please call the Association). During the brief meeting with your representative you may invite them to a late afternoon reception across the street at the Museum of History. During this event we anticipate having "health screening clinics" and use this time to educate our elected officials about the positive impact pharmacists have in the health care system.

We can't over-emphasize how important it is for pharmacists to get involved in the legislative process! We encourage you to commit and schedule the afternoon of March 13, 2001 in Raleigh to assist in shaping the future of pharmacy. ❖

About the Author...
Ross Brickley, RPh, MBA, CGP, Chairperson of the NCAP Legal & Public Affairs Council, can be reached via e-mail at rossrph@aol.com

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Pharmacists' Afternoon in the Legislature

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Please schedule appointments with your Legislators by calling the State Senate at 919.733.7761 or the House of Representatives at 919.733.7760. You may also visit the NC General Assembly website at www.ncga.state.nc.us If you need further assistance scheduling appointments or identifying your legislators please call NCAP at 800.852.7343.

Pharmacists' Afternoon in the Legislature Schedule:

2:00 - 3:00 p.m.	Briefing Auditorium, N. C. Museum of History
3:00 - 5:30 p.m.	Pharmacists meet with their Legislators
5:30 - 7:00 p.m.	Reception Lobby, N.C. Museum of History (All Legislators will be invited to the reception.)

Please complete the Pharmacists' Afternoon in the Legislature registration form and return it to NCAP NOW!

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Ambulatory Care

Survey Highlights of NC Pharmacy Practices

by June McDermott & Dale B. Christensen

This is a brief report of the results of a 1999 survey of ambulatory care North Carolina pharmacy practices. We sought to describe practice patterns in today's busy pharmacies, with a specific focus on the extent to which cognitive services or pharmaceutical care services were provided.

Here in North Carolina, pharmaceutical care has been strongly advocated as a mode of practice for community pharmacists. North Carolina's two schools of pharmacy offer the PharmD as the entry-level degree and emphasize this type of practice. In addition, certificate programs that teach pharmacists how to manage common diseases, the diabetes initiative resulting from the Asheville Project, and the recent passage of the Clinical Pharmacist Practice Act all support the development of PCS. We sought, through this survey, to obtain a snapshot of the extent to which pharmaceutical care practice has become integrated into community pharmacy practice.

This survey is the first assessment of the extent of practice of PC in the State of North Carolina. It was mailed to all 2,048 pharmacist/managers identified by the North Carolina Board of Pharmacy in July, 1999. A total of 778 pharmacies responded to the survey (38% response rate).

Major survey findings are highlighted. Additional details are available from the authors. Periodic follow-up surveys are planned to monitor changes in practice patterns over time.

General operating characteristics:

- The majority of the pharmacies were either chain-owned (49%) or independently owned (30%). Chain pharmacies were open more hours per week than were independents, 76.3 hours vs. 52.8.
- The prescription volume in pharmacies is indeed high. Nearly 39% of chains dispensed 150-300 Rx on an average weekday, with slightly more than 17% filling over 300 Rx per day. Among independents, nearly 40% filled fewer than 100 per day, while about 30% filled between 150-300 prescriptions per day and 8% filled 300 Rx per day.

Cognitive or Pharmaceutical Care Services (PCS)

- Over 30% of all respondents stated they provided PCS at their site. By ownership, 36% university-affiliated pharmacies, 31% of independents and 10% of chains stated they provided PCS.
- The median number of patients provided PCS in pharmacies providing these services was 16 per week. University affiliated pharmacies reported the highest number of patients provided PCS per week (50).
- The most frequently reported cognitive services were: adverse drug reaction monitoring (30%), medication regimen review (21%), prescription refill monitoring (19%), diabetes disease management (19%), drug-drug or drug-food interaction monitoring (18%), and medical device education (17%).
- The most common disease-specific cognitive services offered by responding pharmacies were: diabetes-related services (almost 19%), hypertension (15%), asthma (14%), smoking cessation (11%), and lipid management programs (9%). Independents were more likely than chains or other pharmacy types to offer these services.
- In sites providing PCS, 35% of the pharmacists held the PharmD degree and almost 17% were residency trained.
- Of pharmacies offering PCS, independents were the most likely to bill and receive payment for their services.
- Three variables were significantly predictive of higher numbers of patients provided PCS. These were: 1) lower weekly prescription volume, 2) presence of a pharmacist with Pharm. D. degree on staff, and 3) a medical clinic/HMO setting.

Prior consent arrangements:
(standing orders, instructions or agreements between a prescriber and a pharmacist or group of pharmacists)

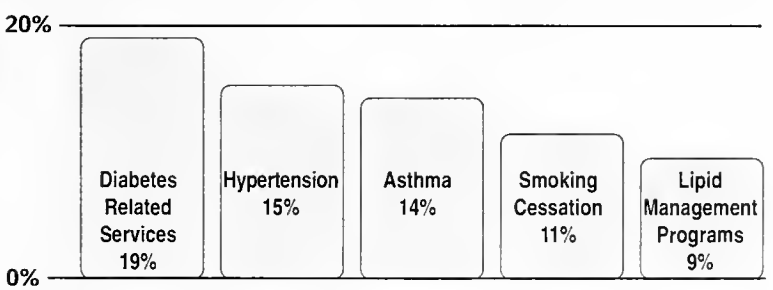
- Among pharmacies with prior consent arrangements, the most common were: permission to practice generic interchange for certain drugs or drug groups (26.8% of pharmacies), use of professional discretion to refill prescriptions when drug use represents continuation of therapy (17.5%), and adjust dosage forms of new prescriptions to meet patient adherence needs (14.8%).

We gratefully acknowledge the cooperation and assistance of Fred Eckel, MS, Steve Caiola, MS, the Deans of pharmacy schools in North Carolina, William Campbell, PhD (UNC) and Ronald Maddox, PhD (CU), and the Executive Director of the North Carolina Association of Pharmacists, Dan Garrett, MS in developing and conducting this survey. A full copy of survey results is available on request. ❖

About the Authors...

June McDermott, RPh, MS, MBA is a Clinical Assistant Professor at the UNC School of Pharmacy and she can be reached via e-mail at June_McDermott@unc.edu. Dale B. Christensen, RPh, PhD, is Professor and Chairman in the Pharmaceutical Policy and Evaluative Sciences Department at the UNC School of Pharmacy. He can be reached via e-mail at dale_christensen@unc.edu.

Most common disease-specific cognitive services offered by responding pharmacies:



Independents were more likely than chains or other pharmacy types to offer these services.

CPP Acts: *Perspectives for NC Pharmacists*

by Issam Zineh & Jodi Dreiling

Pharmacists from across the state gathered August 21 to hear several speakers' positions on collaborative pharmacy practice acts and how they might impact pharmacy practice in North Carolina. The conference, sponsored by The Triangle College of Clinical Pharmacy and NCAP, included a panel of both pharmacists and physicians with unique experiences in joint medical practices.

The Clinical Pharmacist Practitioner (CPP) Act is a House bill that outlines a newly defined role for pharmacists in the overall management of patients. Briefly, the CPP is a licensed pharmacist approved by the NC Medical Board and the NC Board of Pharmacy who, under the direction of a licensed physician, is responsible for a patient-centered, somewhat algorithmic approach to disease state pharmacotherapy. Supervising physicians provide predefined written parameters that create a framework in which the CPP can initiate and modify drug regimens and order laboratory tests related to the original diagnosis.

Speakers included Dan Garrett, Executive Director of NCAP; Dr. Lawrence Greenblat of the Duke Outpatient Clinic; and Dr. Harvey Estes of the Duke University Medical Center.

Currently, the CPP Act in North Carolina seems to have gained the support of both the state medical board and the board of pharmacy. However, as noted by Dr. Estes, the general physician community is unaware of the CPP legislation. In order to shift toward the new paradigm of patient care that such collaborative practice acts represent, Dr. Estes points out, pharmacists must make sure their practice models are sound and well publicized. Also, involved physicians must share their experiences with their piers and, most importantly, all participants must carefully follow the act's rules and regulations so as to avoid system-related errors and undue liability.

Other speakers included Rebecca Snead, executive director of the Virginia Pharmacists Association and Cheryl Clark, senior vice president of Clinical QA Services of the Iowa Pharmacists Association. Under both Virginia and Iowa's collaborative practice acts, pharmacists participate in a protocol-focused, interdisciplinary patient management team in such areas as heart failure, hypertension, diabetes mellitus, and atrial fibrillation.

According to Ms. Snead, the original Virginia collaborative agreement legislation was presented in January of 1995 and with many revisions, was finally accepted in April of 2000. The collaborative agreement allows pharmacists or a designated alternate pharmacist to enter into an agreement with a practitioner of medicine, osteopathy, or podiatry. The agreement allows pharmacists to modify, continue, or discontinue a medication based on protocol, and perform any other measures related to the management of the patient. The protocol must be clinically accepted as the standard of care or must be approved by the boards of medicine and pharmacy. The agreement is valid for two years and should be kept in the patient's file. Virginia pharmacists will be able to assist in the management of patients by providing proactive comprehensive drug therapy management.

Ms. Clarke presented information regarding Iowa collaborative drug therapy management. The guideline was released in 1996 by the Iowa Board of Pharmacy but was not pursued due to political opposition. The Iowa guideline allows pharmacists to implement, modify, and manage medications, collect patient histories, conduct clinical assessments, and order and evaluate lab tests as agreed upon by the pharmacist and physician. Patients are selected to be managed based on a computer algorithm developed by the University of Iowa. Patients must be on 4 or more chronic medications, non-institutionalized, and have one eligible disease state. Some of these disease states include CHF, diabetes, hypertension, asthma, GERD, and various others. These guidelines will allow 20% of Medicaid patients to be eligible for management. Pharmacists are eligible to be providers if they have an active pharmacy license, submit 5 patient care plans, and complete professional training. The pharmacy is eligible if it has a private consultation area and longitudinal patient medical records. Pharmacists will have their own provider numbers and are eligible for reimbursement for patient care services. The program will be evaluated by comparing pharmacies participating in the program to the non-participating control pharmacies. The endpoints being evaluated include medication appropriateness, number of medications, cost of medication, and various others. ❖

North Carolina CPP Update

The Rules defining the Clinical Pharmacist Practioner Act were considered by the Rules Review Committee at its November meeting. There was a question about a portion of the rule and it will be returned to the Subcommittee of the Medical Board and Board of Pharmacy for revision. The Subcommittee was asked to define "approved clinical exerience." The Rules Review Committee will meet again in December and look at the revised Rule. If the revised Rule is satisfactory, it could become effective as early as April 1, 2001. For detailed information on the CPP Act visit the NCAP website at www.ncpharmacists.org.

About the Authors...
Issam Zineh, PharmD, and Jodi Dreiling, PharmD, are Pharmacy Practice Residents at Duke University Medical Center. They can be reached at 919.684.5628.

Community General Offers Safe, Cutting-Edge Care

by Lorie Poole

Community General Hospital is a 129 bed facility in the town of Thomasville, nestled between High Point and Lexington, that offers care to patients from birth through end of life. The most unique service we offer is patient specific care within the patient's own community. The hospital has an emergency department, critical services including an intensive care unit and step down unit called progressive care unit, a women's and children's unit, medical and surgical unit, behavioral health services, and operating suites. In addition, we have outpatient clinics that the pharmacy also services including oncology, urology, gastroenterology, and a new heartburn clinic. Other mobile contracted services brought to the hospital include stereotactic biopsy, MRI, and cardiac cath lab. We care about each individual and strive to provide safe, quality, and cutting edge care.

Describe the services you provide.

As clinical coordinator , I have the opportunity to help guide our pharmaceutical care services and work directly with patients. Interaction with physicians, nurses, and other health care workers enable pharmacists to influence patient care primarily for the inpatient and some for the outpatient. For example, our patient care team meets twice weekly on Tuesday and Thursday to review and discuss each patient. Members of the multidisciplinary team include case management, social worker, nurses, pharmacist, dietician, physical therapist, and chaplain. We are able to share and discuss each patient's needs and facilitate discharge planning. Any issues that arise and need immediate attention by the physician are called to their office and addressed. Our physician staff has been very supportive of the interventions. On a daily basis, the clinical pharmacists "round" in the ICU/PCU and the medical/surgical units reviewing charts and medication administration records. The clinical pharmacist is available for physician and nursing questions. The surgical service has a pharmacist and nurse who round with the physician daily except weekends. We work closely with the surgeons to help optimize effective use of medications. Without an onsite infectious disease physician, we try to support the physicians and nurses with monitoring of all positive cultures to ensure appropriate antimicrobial therapy. In addition, another pharmacist has begun working with the Behavioral Health unit to assist in answering questions about medications for each patient and provide education materials for patients and staff.

The hospital has four pharmacists, including the director, involved with providing drug information, pharmacokinetic dosing of aminoglycosides and vancomycin, renal dosing adjustment, heparin weight based dosing, and target drug monitoring. With so many areas of practice, we often wear many different hats during the day. Committee participation has helped us influence patient care. Some of the committees are CODE 500, wound care team, patient care team, medication/nutrition subcommitte, pain management, and other ad hoc teams as needed. The medication/nutrition subcommitttee, which functions similar to a Pharmacy & Therapeutics Committee, is responsible for assuring all policies and procedures and patient care issues related to medication and nutrition are followed according to JCAHO standards. We complete medication and nutrition usage evaluations that assess patient care, initiate protocols, and design order sets. One of the most recent order sets developed and implemented was the Community Acquired Pneumonia order set that consults pharmacy for assessment and administration of the pneumococcal and flu vaccine. Another protocol we have established is the Deep Venous Thrombosis which will eventually help us establish an outpatient anticoagulation program. The committee also implemented adult sliding scale insulin order sets that has had a 98% acceptance rate by the medical staff. Implementation of the order sets has helped decrease medication errors, which has been a primary focus for the hospital. Other focuses include ways to decrease costs with automatic therapeutic substitutions for H2 blockers, proton pump inhibitors, amoxicillin TID to BID dosing, antibiotics, etc.

What were your stumbling blocks?

With all the services we provide, we want to expand and do more. We want to move more into the outpatient setting. The biggest stumbling block to expansion is justification of hiring more pharmacists to perform more patient specific care. We are unable to continue to grow without more staff. Some of the time spent in developing new projects has been supported by increase in technician support and responsibilities. All technicians perform order entry, prepare intravenous medications, cart fill, floor stock, nursing units and Code 500 inspections housewide. A specific example of technician expanded services is the Medication Hotline, which has increased medication error and adverse drug reaction (ADR) reporting. The hotline allows nurses, physicians, and others to call in information regarding ADR's or medication errors and the technician each morning completes the data collection sheet on each patient. We plan to have some of the technicians assist in screening patients for the flu and pneumococcal vaccine once the community acquired pneumonia order set is established.

Where are you headed now with your practice?

Maintaining quality care, balanced with decreasing high drug cost is on our daily agenda. Continued use of orders sets, staying abreast of new therapy and technology, availability of pharmacists for direct patient care, and expansion of technician services will help us to continue to be vital. In addition, we would like to see some of the disease state management services created in the outpatient setting. At Community General, we care about each individual and strive to provide safe, high quality , and cost-effective care. We work hard to make our institution the best it can be for the community. ❖

About the Author...

Lorie Poole, BS Pharm D, BCPS, Clinical Coordinator at Community General Hospital, can be reached at llpoole@novanthelath.org

Annual Carolina Seminar,

Over 500 pharmacy professionals, including exhibitors and students participating in the Residency Showcase, attended this year's Annual Carolina Seminar. As this photo collage indicates, attendees had the opportunity to mix education and networking with fun! Those who renewed their NCAP membership on site were entered in a drawing for a Palm Pilot. Anita Moore Britt of Best Value Drug in Farmville, NC was the lucky winner!

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Clinical Pearls of Internal Medicine

by Kolleen Newsome & Dell South

The road to completing the Doctor of Pharmacy degree is long and, sometimes, a little bumpy. Each semester should build on the information from the one before as a solid foundation is forming. Many students leave the comforts of the classroom feeling prepared for any clinical scenario while others are fearful they will never be able to recall the proper information with confidence.

We have found that the fourth year of clinical clerkships have proven to solidify, clarify, and expand our knowledge base formed during our didactic course work. While completing our Internal Medicine rotation, a day did not go by without learning and experiencing something new. What follows are just a few of the clinical pearls we gleaned and would like to share with our fellow practitioners.

• The presentation of antibiotic associated pseudomembranous colitis (PMC) should be suspected in patients with diarrhea who have received antibiotics within the previous 2 months or whose diarrhea began 72 hours or more after hospitalization. *Clostridium difficile* is the major cause of antibiotic associated PMC [1].

• Medications that have an increased likelihood of cross-sensitivity in patients with a "sulfa allergy"[2]:

Acetazolamide	Chlorothiazide	Hydrochlorothiazide	Silver Sulfadiazine	Sulfasalazine
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Chlorpropamide	Glyburide	Probenecid	Sulfapyridine	Torsemide

• *Pseudomonas aeruginosa* rarely causes infection in a healthy host. However, it is a relatively common organism seen in the hospital setting. Dual antibiotic therapy is recommended for the treatment of *P. aeruginosa* (outside of the urinary tract) in order to avoid the possibility of resistance. Six classes of drugs can be used in combination for the treatment. Aminoglycosides, third or fourth-generation cephalosporins (e.g. ceftazidime, cefepime), extended-spectrum penicillins (e.g. piperacillin, ticarcillin), carbapenems (e.g. imipenum), monobactams (e.g. aztreonam) and fluoroquinolones (e.g. ciprofloxacin).

• Lactic acidosis is a rare but serious complication of glucophage (Metformin®). Renal function should be monitored to decrease the risk of lactic acidosis. Therapy should be discontinued in patients who have an elevation in serum creatinine of $\geq$ 1.4mg/dl for females and $\geq$1.5mg/dl for males[3].

• Ceftriaxone (Rocephin®) is an antibiotic commonly administered to patients presenting to the Emergency Department. One reason for its use is that an assessment of renal function is not necessary. Other hepatically metabolized antibiotics include the penicillinase resistant penicillins (e.g. nafcillin), metronidazole (Flagyl®), clindamycin (Cleocin®), moxifloxacin (Avelox®) and the macrolide class[4].

• In patients where the use of an ACE Inhibitor is clinically desired but contraindicated, hydralazine (Apresoline®) and isosorbide (Isordil®) may be utilized instead. These two agents act synergistically to decrease both the cardiac preload and the afterload [5].

• Over 150 different types of Glucose-6-phosphate Dehydrogenase Deficiency (G6PD) have been identified. This is an inborn resistance to malarial infection and the two most common forms are African (A-) and Mediterranean. Severity is ranked according to "class" with Class I being the most serious and Class V being associated with normal G6PD levels. Most people with the African type fall into the Class III category with episodes of hemolysis only when precipitating factors exist. Drugs that should be avoided include: dapsone, methylene blue, nalidixic acid, nitrofurantoin, phenazopyridine, primaquine, sulfacetamide, sulfamethoxazole, sulfanilamide, and sulfapyridine. Other agents that were once thought to be inappropriate can now be used carefully at normal therapeutic doses. These include: acetaminophen, ascorbic acid, aspirin, colchicine, diphenhydramine, isoniazid, phenytoin, quinidine, quinine, streptomycin, sulfadiazine and trimethoprim[1].

Acute Care

• Treatment of Severe Hyperkalemia (K+ > 7 mMol/L) with Cardiac Manifestations[6]

Reverse membrane effects	Calcium	1 gm IV over 5-10 minutes
	Hypertonic Saline	
Transfer potassium into the cell	Glucose and Insulin	250-500 ml/h $D_{10}W$ +10-20 units of regular insulin per 100 g glucose.
	Sodium bicarbonate	50-100 mEq over 2-5 minutes
	Albuterol (b_2-agonists)	10-20 mg nebulized over 10 minutes.
Remove potassium from the body	Potassium-binding resins: Sodium polystyrene sulfonate (Kayexalate®)	20-30 g in 50 mls of 70% sorbitol every 4 hours or 50-100 g in 200 mls water by retention enema every 4 hours.
	Loop diuretics: Furosemide	
	Dialysis	
Monitor serum potassium and EKG changes.		

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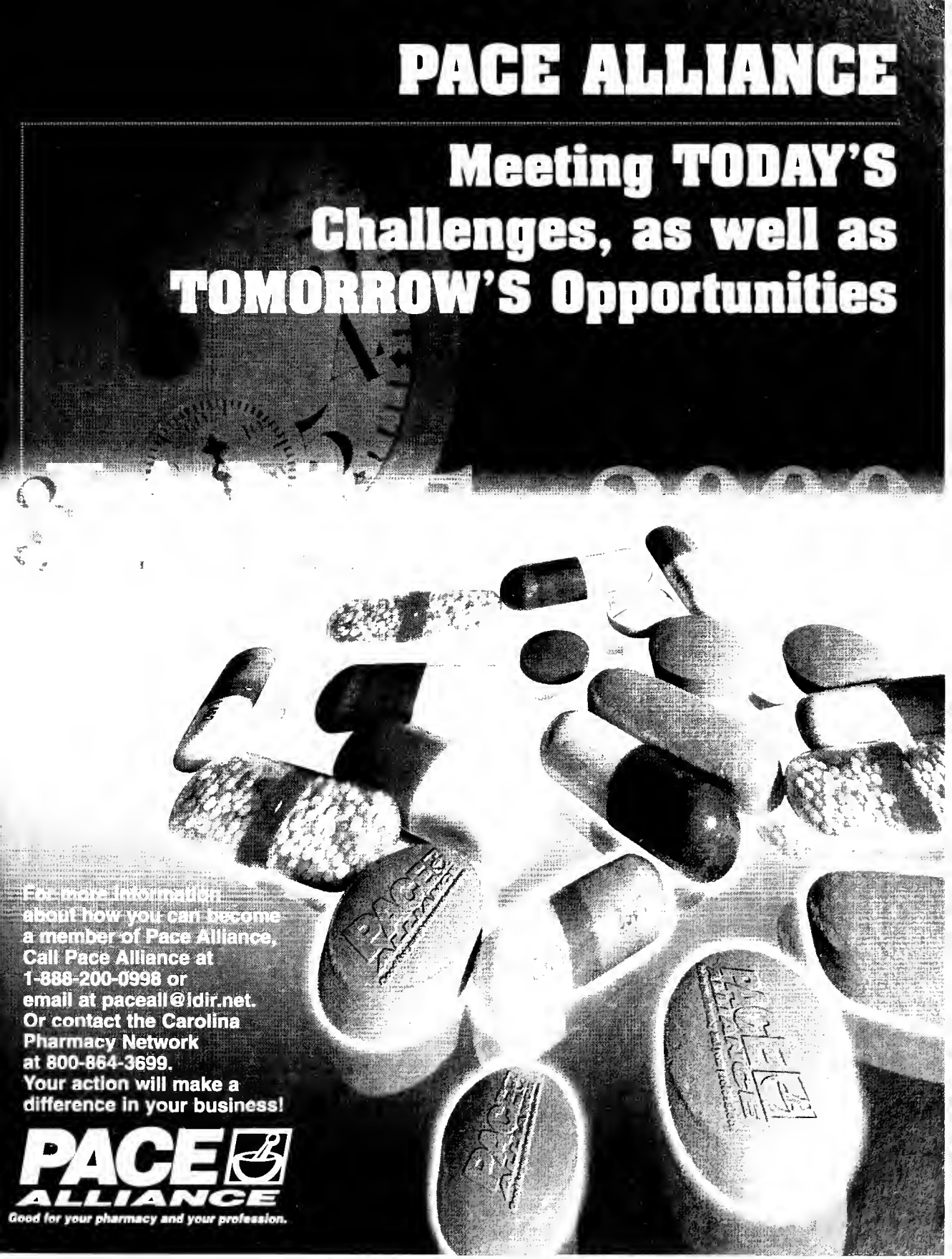

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Clinical Pharmacist Incomes Jump 11% in Nine Months

Salaries offered to pharmacists in clinical settings increased 11% from January, 2000 to September, 2000, according to a national health care staffing firm, reflecting the acute demand for pharmacists nationwide.

"An 11% spike in income over nine months is very unusual of for health care professionals," notes Robert Colmery, vice president of Allied Consulting, a Dallas-based firm that specializes in recruiting pharmacists and other allied health professionals. "It demonstrates that an unprecedented bidding war is taking place in pharmacy recruitment."

Allied Consulting calculated the pay hike by examining the 192 search assignments for pharmacists the firm conducted in the nine months beginning January 1 and ending September 30, 2000. Search assignments reviewed were conducted in 32 states on behalf of 140 separate health care facilities.

The firm's figures show that salary offers made to pharmacists in January, 2000 averaged $64,400. The low salary offered during this period was $47,736, extended by a hospital in Washington state. The high salary offered was $83,740, extended by a hospital in Memphis, Tennessee.

In September of 2000, by contrast, salary offers averaged $71,300 The low offer during this period was $56,160, extended by a hospital in Texas. The high offer was $99,000, also extended by a hospital in Texas.

Colmery points out that over 90% of the pharmacist searches Allied Consulting conducts are on behalf of hospitals and involve clinical rather than retail pharmacy. He believes the salary increases are in part an acknowledgement by hospitals that they must pay more to compete with retail outlets, which often can outbid hospitals and other clinical organizations.

"The profusion of drug-based therapies and the aging patient population have increased the need for pharmacists at hospitals," Colmery says. "At the same time, retail outlets seem to be going up on every street corner. The resulting demand has made pharmacists the hottest category of human capital in health care staffing today. Hospitals now are realizing what it takes to compete."

Colmery sees no abatement in the demand for pharmacists in the near future and predicts that salaries have not yet reached a ceiling.

"We already are flirting with six figures for clinical pharmacists," he observes. "I doubt their incomes will reach the level that primary care physicians make, but we could get close." ❖

For more information about allied health care professional salaries, access Allied Consulting's web site at www.alliednet.com.

Diabetes Community Health Project Update

The effort to replicate the Asheville Project in other North Carolina Communities, known as the Diabetes Community Health Project, is now underway.

The DCHP toolkits were delivered in October and are currently being distributed to the 15 communities who are working on the project. Additional communities and organizations have expressed interest in joining the endeavor, and organizers are hoping to include them in the project, as well.

There are three types of toolkits: the "Champion" toolkit is geared toward marketing the DCHP to potential payers; the "Coach" toolkit is geared toward implementing the DCHP. The "Community Pharmacist" toolkit contains all the forms and letters necessary to provide the service and obtain the minimum data required for outcomes reporting. Here's what's currently happening across the state:

- **Lumberton** started their DCHP with Southeastern Regional Medical Center in November. The first patient was enrolled on November 7. Three hospital pharmacists are providing the care in the program.

- The **Nashville** Champion hosted a dinner program for local employer group representatives. John Miall and Glenda Trantham from the City of Asheville presented information about the Asheville Project.

- The **Concord** Champion held a dinner program with John Miall and Glenda Trantham at the Speedway Club.

- **Raleigh** is using funds to support a pharmacist-consultant in the Coach's role. This individual is currently working diligently to recruit pharmacists, coordinate training and build relationships with healthcare professionals in Wake County. The Raleigh Champion and Coach recently held a one-hour CE program/informational meeting to discuss the DCHP with interested pharmacists in Wake County. Feedback from the meeting indicates that there are already 8 pharmacists who have completed diabetes certificate training in the Raleigh area; these 8 pharmacists are willing and able to dedicate nearly 70 cumulative hours per week to seeing patients.

- The **Greensboro** Champion and Coach will host a meeting for interested pharmacists on January 18, 2001 and a meeting for potential payers in February 2001.

- The **Benson/Dunn** Champion and Coach have committed pharmacists in place and have plans to approach a major self-insured employer about participating in the DCHP.

- Organizers met with the City of (Little) **Washington's** Human Resources Director and Risk Manager on November 10 to discuss how they could "replicate the Asheville Project" for their employees with diabetes. They are interested in beginning the program in July 2001.

- APhA's Tom English contributed an article to the November issue of *Pharmacy Today* featuring the DCHP toolkit and how it can be obtained.

- Over 60 copies of the DCHP toolkit CD-ROM have been distributed to both national and international pharmacists.

- Blue Ridge Paper in Canton, NC wants to offer the "Asheville Project" diabetes program to their employees in 7 states with the hopes of implementing it at the first of the year. State pharmacy executives have been contacted in each of these states (Canton and Waynesville, NC; Fort Worth, TX; Clinton, IA; Olmstead Falls, OH; Trenton, NJ; Richmond, VA; Athens, GA) to inform them of this opportunity and determine each state's level of interest in/support for this program. This may be the perfect opportunity to take this diabetes care model across state lines! ❖

Participating Communities

The following communities have designated leaders who are actively spearheading the DCHP:

Charlotte
Concord
Durham
Benson/Dunn
Gastonia
Graham/Burlington
Greensboro
Greenville
Lumberton
North Wilkesboro
Nashville
New Bern
Raleigh
Wilmington
Wilson

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The Consultant Pharmacist in the ICF-MR

The consultant pharmacist most often can be found in the long-term care facilities practicing senior care pharmacy, but a different and additionally rewarding area is the intermediate care facility for the mentally retarded (ICF-MR). In this setting, pharmacists can utilize many of the same skills that are necessary in the nursing home arena but focus their expertise in slightly different angles.

The main focal point of the consultant pharmacist, the drug regimen review, is completed quarterly in the ICF-MR facility versus monthly in the nursing home. While the ICF-MR resident has moderate to severe mental and sometimes physical challenges, there are fewer co-morbidities as compared to the nursing center resident. The pharmacist must be diligent in staying educated on new and existing anticonvulsant therapies and with the monitoring of these medications since the majority of residents have conditions that include seizure disorders. Making sure drug levels are ordered, drawn and within normal limits becomes very important as well as reviewing seizure records that are kept by the facility.

The pharmacist also has a role in the monitoring of psychoactive medications that are used to help control negative behaviors exhibited by some residents. This monitoring consists of the typical practice of following medication doses, side effects, appearance of movement disorders, and possible drug dose tapering opportunities. In my ICF-MR sites, a quarterly meeting of various health care professionals is held to evaluate the behavioral therapies being utilized. The meeting is headed by the psychiatrist and also includes the resident and their responsible party, if available. Medication education is very important in this meeting not only for the health care team, but also the responsible parties. Consents must be signed by these parties before psychoactive medications are begun in the ICF-MR resident. The pharmacist is a great choice to provide information regarding the benefits and risks of the psychoactive medications in order to aid the decision process.

Medication storage and medication pass audits are performed in the day center and at the individual group homes if deemed necessary. Resident independence is a key feature in the ICF-MR setting. During the medication pass, not only are the nursing techniques observed, but the pharmacist may also help in choosing dosage forms that encourage the self-administration of medications to any degree. Residents are encouraged to know their medication names and the times they are due to be taken. They are encouraged to pour their own liquids and prepare their doses whenever possible. This differs slightly than the audits completed in the nursing facilities due to the common incapacitation of the geriatric residents. Focus in the long-term care facility is on the adherence to regulations and minimizing drug use, while focus in the ICF-MR setting is the importance of independence in addition to the adherence to regulations.

The pharmacist may also help the staff with ideas for medication packaging to simplify the medication administration process. This becomes very important in the group homes, where the caregivers typically do not hold medical degrees and do not have a large knowledge base regarding medications. The consultant should always make sure that directions for administration are in general language - use of medical abbreviations can cause confusion and lead to medication administration errors. This differs from the skilled nursing home setting where only licensed nurses administer medications.

For the consultant pharmacist, the ICF-MR setting can be highly rewarding. Working closely with other health care professionals to help a group of people who view any act of independence with great pride and achievement and who hunger for education regarding their health care, can help to rejuvenate the pharmacist's sense of value in healthcare.❖

About the Author...

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Changes to Continuing Education

In order to better serve our members NCAP will mail a special CE Supplement only to members who request it. CE is no longer published in the *North Carolina Pharmacist*, leaving more room for news of interest to all readers. As always, Continuing Education is available only to members. Members who would like to be added to the mailing list for CE should contact Teressa Reavis at teressa@ncpharmacists.org or call (800) 852-7343 ext. 27.

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Mentorship Program Offers Unique Learning Experience

The NCAP Mentorship Program gives Mentors the opportunity to share their valuable experience with Mentees, who in turn, gain from the knowledge and guidance of an active member of the association. NCAP is seeking participants in the program which matches Mentees with Mentors, and is designed to:

- Encourage personal and professional growth of "new" members who may serve as future leaders in the organization, and
- Allow members an opportunity to become better acquainted with organizational activities and services through one-on-one interaction with a mentor.

A *Mentor* is a member who serves on a Council or Practice Forum and has been in practice for at least five years. A *Mentee* is any member (pharmacist, student, technician) who would like a recognized leader to guide and encourage involvement in NCAP events and facilitate networking.

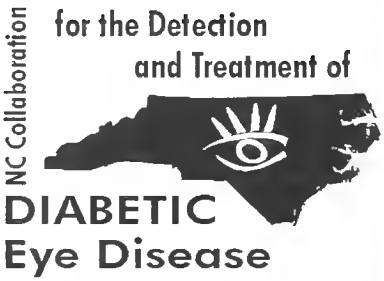
Mentors and Mentees are matched in the fall of each year, based primarily on practice interest and geographic location. Matches remain active for one year, and the level of participation is left to the discretion of the Mentor and Mentee.

If your are interested in participating in the Mentorship Program you can obtain an application on the NCAP Website at www.ncpharmacists.org or call the NCAP office at 919.967.2237.

NCAP Partners to Help Diabetic Eye Disease Patients

NCAP has partnered with North Carolina medical community volunteers to help prevent diabetic eye disease. Nationally about 10 percent of the Medicare population have diabetes. North Carolina has one of the largest Medicare populations in the country, numbering more than one million. Over 70 thousand of these have been diagnosed with diabetes, which is a leading cause of vision loss and blindness among adults. Unfortunately, nearly 30 percent of diabetic Medicare beneficiaries in our state haven't had an eye exam in over two years. The American Diabetes Association recommends annual medical eye exams for people with diabetes. Medicare does pay for eye exams to detect diabetic eye disease. However, Medicare beneficiaries are typically required to contribute a deductible and co-payment for this exam and for subsequent treatment.

The Health Care Financing Administration (HCFA), the American Academy of Ophthalmology (AAO), and the American Optometric Association (AOA) have launched a cooperative effort to increase the dilated eye exam rate among



Medicare beneficiaries with diabetes. Participating opthalmologists and optometrists in North Carolina may waive co-payment for medical eye exams given to qualifying Medicare beneficiaries with diabetes.

An eye initiative, led by Medical Review of North Carolina, Inc. (MRNC), has been formed – the NC Collaboration for Detection and Treatment of Diabetic Eye Disease. This coalition, committed to improving eye care for individuals with diabetes, includes representatives from both public and private health organizations. Through the efforts of the members of this coaltion, including NCAP, vision loss and blindness due to diabetic eye disease may be prevented.

The NCAP Staff would like to wish each of you a happy and safe holiday season.

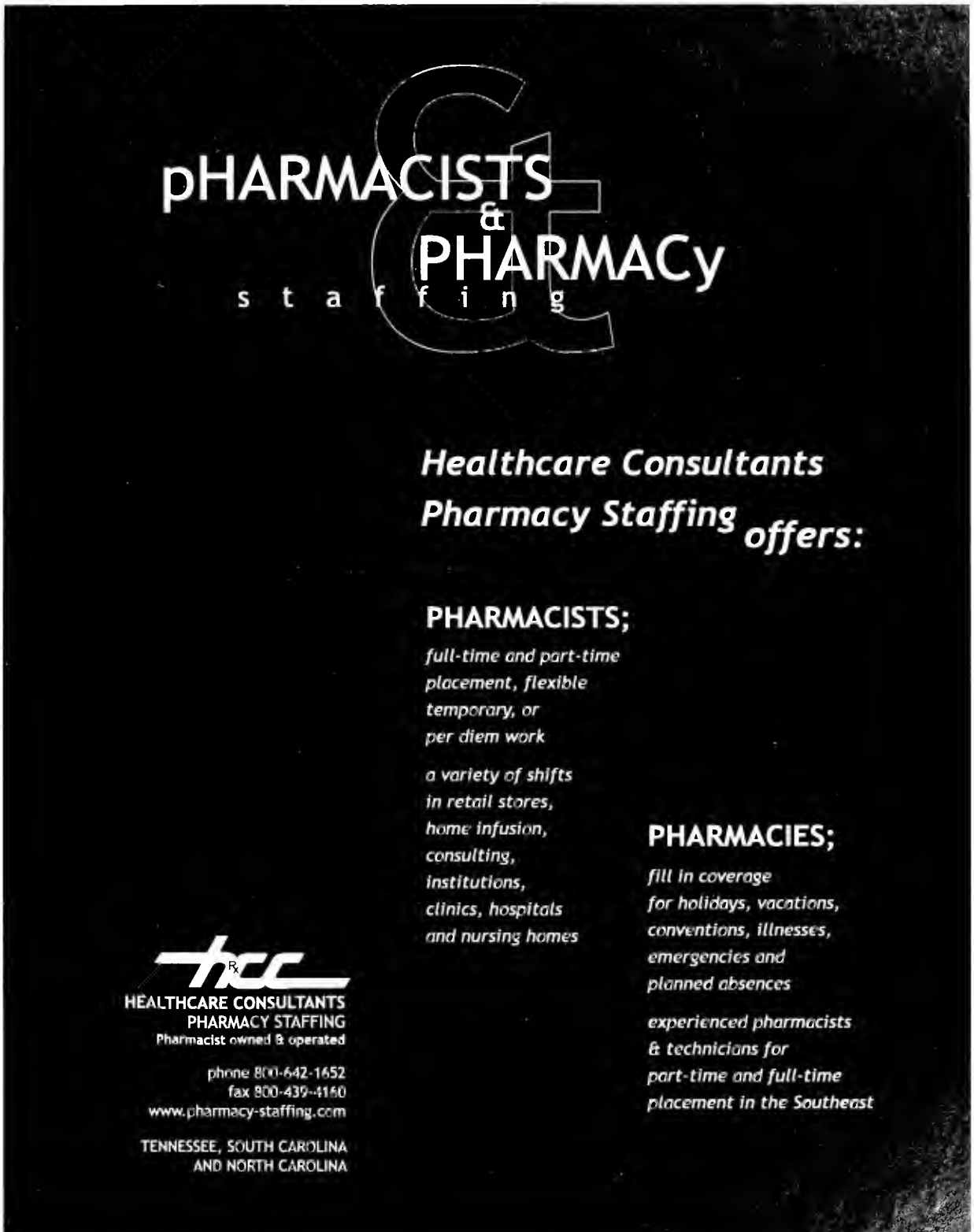
2001 Calendar

March 1-2: *Annual Winter Meeting* Marriott Hotel, Greensboro. Make plans now to attend! Topics include Pain Management Issues, Medical/Legal Issues of Narcotic Use, Pharmaceutical Care of Common Problems in the Elderly, Antibiotic Issues in Trauma and Critical Care Patients, Asthma Patient Management, Update on the Management of Congestive Heart Failure, and Drug Therapy Management for the Stroke Patient.

March 29-31: *Annual Carolina Regional Conference for Consultant Pharmacists* Charlotte University Hilton. Topics include Low Molecular Heparin Switch to Warfarin, Chronic Wounds with Inclusion of Nurses, Assisted Living, Infectious Disease Review, Advances in the Treatment of Multiple Sclerosis, Breast Cancer Prevention, Advanced Interpretation of Lab Values, Neurology of Addiction, Drug Diversion, Falls, Alzheimer's Disease and Insomnia.

October 29-31: *NCAP Annual Pharmacy Convention and Annual Carolina Seminar* Sheraton Four Seasons, Greensboro. Topics include Pharmaceutical Approaches to Infectious Disease Therapy, Medication Errors, Prevention and Detection.

Please visit the NCAP website at www.ncpharmacists.org for more information on upcoming meetings and events.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